

# MINICAM PHOTOGRAPHY



**HOW TO USE YOUR LIGHTS**  
**BY JOHN HUTCHINS, A.R.P.S.**

**SPECIAL SUMMER AND VACATION ARTICLES**



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# MINICAM

THE MINIATURE CAMERA MONTHLY

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EDITED BY WILL LANE, A. R. P. S.

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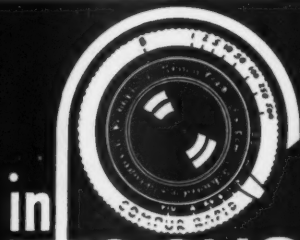
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"On a Dark Street"

Sirs:

I didn't realize that every nose casts its shadow before it until reading John Hutchins' "Nose Shadow No's," last month.

The article has opened my eyes. For the first time, I can look intelligently and critically at human faces, whether in real life or in pictures.

As for Alexander King, the Life associate editor whom you glorified last month in "A Day in the Life of a Picture Editor"—he strikes me as being a pretty hard boiled duck. I'd hate to meet him—unless on a dark street where he wouldn't be able to see my pictures.

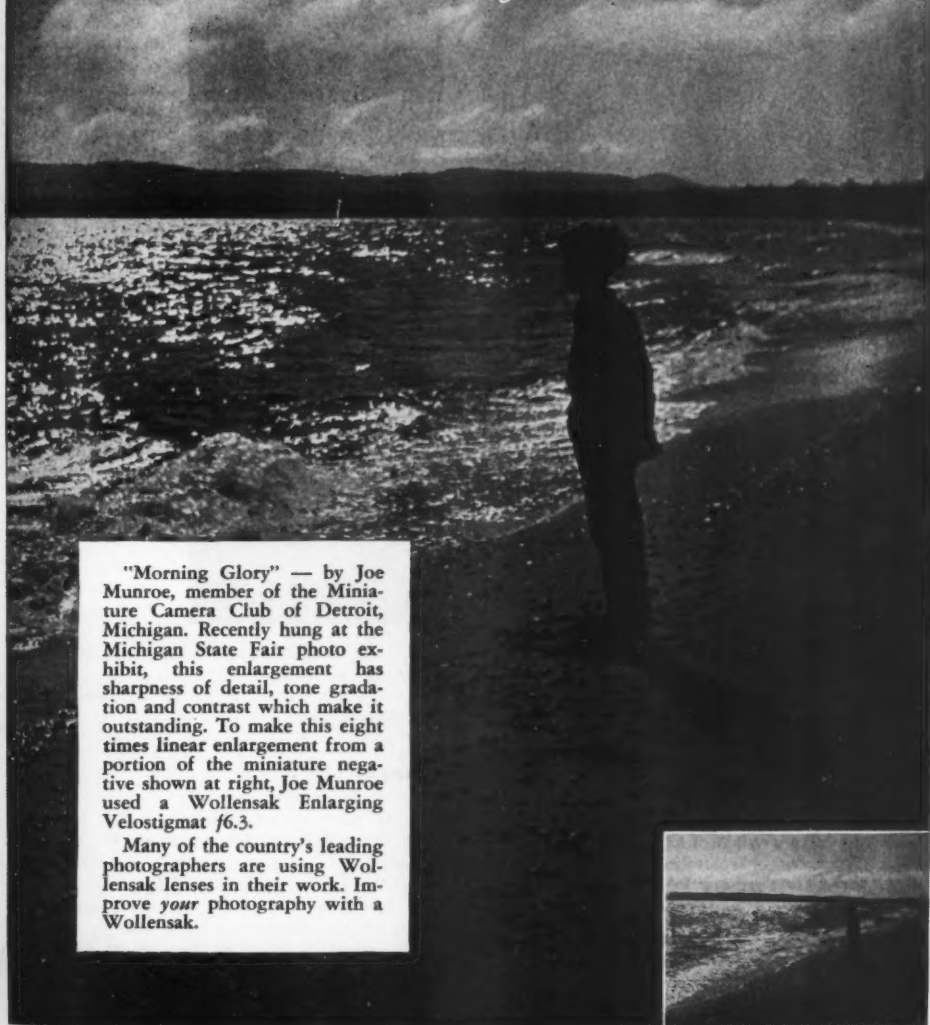
LAKE S. ANDERSON.  
Los Angeles, Calif.

● Not so hard-boiled that he can't wax enthusiastic is Pictureman King, whose article this month is "The Story of Bill Brandt." Also in this issue is the first of John Hutchins' new series, "How to Use Your Lights."—Ed. (Page 6, please.)

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# Wollensak means Good Lenses



"Morning Glory" — by Joe Munroe, member of the Miniature Camera Club of Detroit, Michigan. Recently hung at the Michigan State Fair photo exhibit, this enlargement has sharpness of detail, tone gradation and contrast which make it outstanding. To make this eight times linear enlargement from a portion of the miniature negative shown at right, Joe Munroe used a Wollensak Enlarging Velostigmat f6.3.

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**SUPERIOR-1**  
Fine Grain

**SUPERIOR-2**  
All-Purpose

**SUPERIOR-3**  
High Speed

### "Air Raid"

Sirs:

That "air raid" snapshot printed "In Focus" last month caused me to dig out the enclosed as another sample of "things to come" in the



U. S. if European events continue in their present disastrous vein.

It was taken on Paint Creek, West Virginia in 1932, and shows a house after a flood and severe wind storm. The house is partly submerged in the high water. The roof and sides, crushed by other houses, are almost completely demolished.

The picture was taken from the top of another house top with a Kodak 120, 1/25 second at f/8, on Verichrome film.

HAROLD ERLE ANGLE.

East Bank, West Virginia.

### "Smuggled"

Sirs:

Due to the recent interest in war pictures I thought you might be interested in this one of the Duca Palace in Rome during a total Italian blackout.



This picture was smuggled through the Italian censors

with great difficulty due to the vital military nature of the subject.

BILL THOMPSON.

Wilmington, Del.

### "Champlin 17"

Sirs:

We have tested Champlin's No. 17 fine grain film developer for ourselves. We like it so well that we are using it in our finishing plant. We are not replacing Champlin's No. 16 with it, but we are giving our customers their choice of the two at no extra charge.

THE M. M. SHOP

Bozeman, Mont.

### "Shoot at 1/100,000"

Sirs:

Your article "Shoot at 1/100,000 of a Second" is extremely interesting. We appreciate the circuit and data.

May we inquire if there is, to your knowledge, any reason why we could not legally

build and use these lights for use in our own commercial studio? Such as patent rights?

You sure are to be congratulated on the sincere efforts you are making to give practical information to the photographic minded and our only suggestion is to never devote any space to crack-pot cranks who criticize you or others to see their name in print.

CRESCENT STUDIOS CAMERA SHOP

Jas. A Wilson

Kalamazoo, Mich.

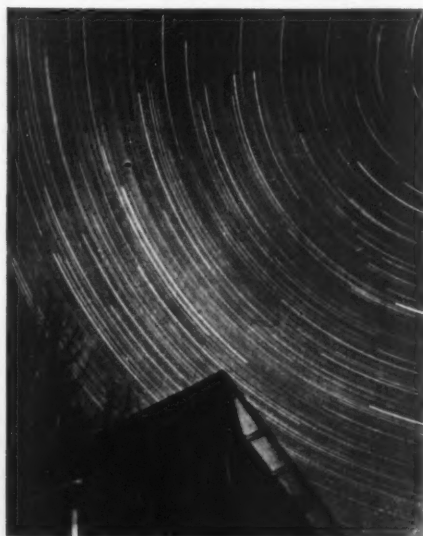
• *There are no restrictions as to the use of the stroboscopic lighting unit described in the May MINICAM. Another article on the subject is scheduled for a future issue. As indicated in the diagram, the high voltage side of the circuit must be properly insulated to avoid the possibility of a shock.*

### "More Times"

Sirs:

I think that I can make the claim that this print has been reproduced more times than any other star trailing picture ever taken, having been accepted by the following: Life, Milwaukee Journal, Rural Gravure Service, Mechanix Illustrated, Popular Mechanics, 19th American Photography Competition, U. S. Camera 1940, Popular Photography, Nature Magazine and Foto News.

Called "star trailing", this picture, made on a clear still night, shows how the earth rotates. The effect was obtained by pointing the camera in a northwesterly direction and exposing for two and one-half hours. Each star traced



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an arc on the film as the earth spun, revealing the apparent movement of stars across the heavens, which is actually caused by the rotation of the earth. A 9x12 cm. Steinheil camera was used at f/4.5, on Super Plenachrome film.

EMIL PEARSON.

Redgranite, Wis.

### Sun-Glass Filter

Sirs:

I think you will be interested in some experiments made with an ordinary pair of dime-store yellow sunglasses which are made to clip over ordinary spectacles.



The glass is merely held over the lens of the camera. A single yellow lens is about equal to a medium yellow or 2X filter; and two together give the effect of a deep yellow or 4X filter. When using one glass, exposure is doubled, or increased one stop. With two glasses together, exposure must be quadrupled, or increased two full stops, as from f/16 to f/8.

BOB SABLOFF

Montreal, Canada

• The lens from yellow sunglasses may be used as a cloud filter in pictures of this type as any optical aberrations caused by the imperfect glass might not be apparent in distant scenes where definition is not a vital consideration.—Ed.

"Worth the \$1.50"

Sirs:

I have been a regular reader of your magazine since it made its appearance a few years ago. I wish to take this opportunity to express my opinion and thanks for the interesting articles printed from issue to issue. Al-

though your magazine cost us \$1.50 per copy here, I think it is worth the price.

GEORGE C. LAU.

Hongkong, China.

### Correspondence Desired

Sirs:

I am a new reader of MINICAM, purchasing my first copy last month, and am surprised at the amount of interesting and useful information within. In my opinion we have nothing to equal it over here, our magazines being full of adverts and a lot of repetition of past issues.

Under your chapter "Landscapes to Order" I think that the parked car is out of proportion with the rest of the picture and would have been more in keeping at half the size. I hope to try "Champlin 17" if, as stated, it allows films to be used at four times their rated speed, but I have been unable to get the Diethylene glycol.

I would like to correspond with some one over in the States who is interested in miniature photography and exchange views if this is possible during the present turmoil. I am a "Hiker" and combining it with photography find it a very pleasant pastime.

I have just taken to photography seriously during the past two years and cash being not



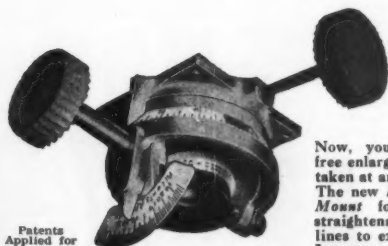
too plentiful I have to manage with an "Agfa Karat" 3.5 with compur-rapid shutter (new model) and find it a very clever and apt miniature although I long for something taking full length 35mm film and a coupled range-finder. Some day my prayers may be answered. Who knows?

Here's looking forward to next month's issue.

S. ATKINSON

Newcastle-on-Tyne .4, England

## THE NEW ELWOOD SWING-TILT LENS MOUNT For Enlargers



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The image is sharp to the edge when corrected by the Elwood Swing-Tilt Lens Mount.

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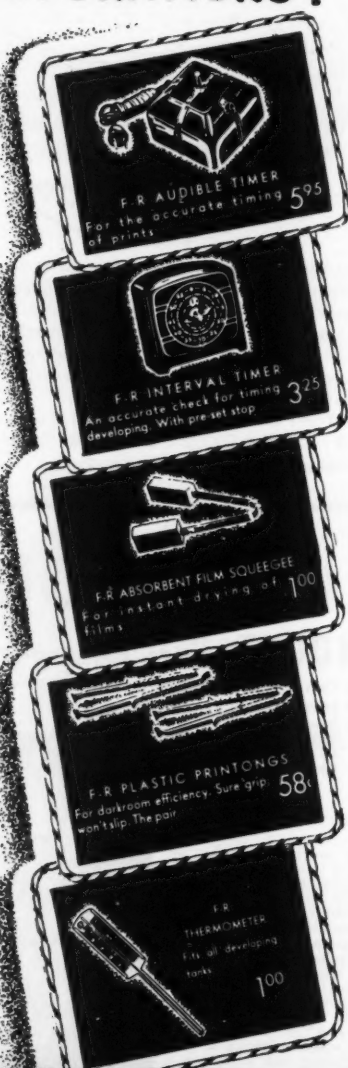
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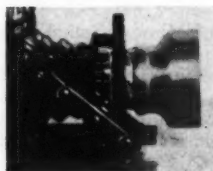


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## "5-Cent Lens Shade"

Sirs:

So many inexpensive substitutes for lens shades have been suggested from time to time that I should hesitate to advance my discovery if I were not convinced that it is superior.



It is an aluminum alloy biscuit cutter that comes in two sizes, and sells for five cents at any hardware store. The smaller will fit any lens up to 32 mm. (1¼" diameter), and the larger up to 42 mm. (1¾"). It is so shaped at the back that unmounted glass filters may be easily inserted. The slip-on type of filter can also be used. The inside of the shade should be covered with black velvet, felt, or painted black matte. The snapshot shows the larger size on an Ikonta Super B (39 mm.) lens.

HASTINGS WHITE.

Berkeley, Calif.

## "Comprehensive Reference Book"

Sirs:

A few weeks ago I went through some twelve or fifteen copies of MINICAM that I had on file, and cut out the articles that interested me most. These were pasted in a scrap book, and will be indexed under subject matter. I was amazed at the comprehensive reference book which this makes, covering: lenses, filters, exposure, composition, films, papers, enlarging, etc. And there were many articles which I did not keep, on subjects which did not concern my own special interests. One might say that MINICAM is a mighty big magazine for its size.

H. TRUMBULL HOWARD.

Upper Darby, Pa.



"The chief says he has no ivory or pelts for trade, but how about two wives for a roll of 120 and quart of Champlin 17?"

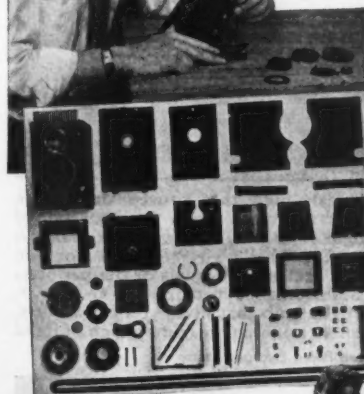
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Words can't describe the thrill of seeing this fine, modern double-lens reflex "grow" under your very eyes as you assemble the precision LensKit parts one by one. And the fun of assembling is just the *beginning*. The 12 sharp, clear, 2 1/4" x 2 1/4" pictures the LensKit takes on each roll of Eastman 620 or Agfa PB20 film will delight you for years to come. Your friends won't believe they were taken with a camera you built yourself.

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[ ] I enclose remittance in the amount of \$3.95. Please send me postpaid immediately the complete LensKit.

NAME \_\_\_\_\_

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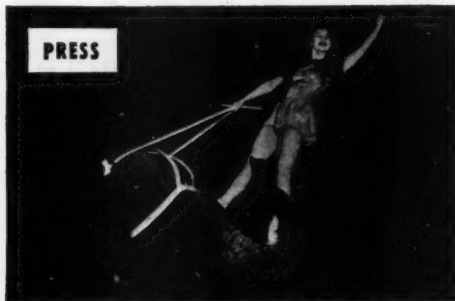
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### COMMERCIAL



**ONE G-E MIGHTY MIDGET** got this banquet scene... a 65-foot shot at 1/200th. Note that the beam from "directed flash" gives good exposure in background as well as in the foreground. There are many other commercial applications.

### HIGH SPEED



**G-E NO. 5** in concentrating reflector gives plenty of light for high shutter speeds. This rodeo scene was shot with only one bulb at 1/400th second, F/6.3, 40 feet from the subject.

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# ★ HATS OFF TO SUMMER!



IDEAL CAMERA CONDITIONS ARE HERE — RECORD YOUR VACATION WHETHER YOU TRAVEL OR STAY AT HOME — HERE'S HOW TO TAKE BETTER PICTURES THIS SEASON

By **RUS ARNOLD**

• Three cheers for the simplicity and spontaneity of pictures that breathe the spirit of good times outdoors. A low camera angle, or placing the camera on the ground, will get those beautiful sky and cloud backgrounds. This picture would have been even better with a light breeze blowing the girl's skirt. Orange filter (K-3),  $f8$ ,  $1/200$  second. This shutter speed was fast enough to catch the hat in mid air.

● "MAKE HAY WHILE THE SUN shines," says the old proverb. The modern version says, "make pictures." The summer sun is better than all of Hollywood's Klieg lights turned on at once. Without running up the electric bill, the sun provides the biggest spotlight in the world, rendering texture for you in a closeup, or

illuminating the huge expanse of a beach or landscape.

Swimming, camping, boating, picnicking, touring—every activity has its own special opportunities for picture taking. You don't necessarily have to travel to get them, although new places, people, and scenes always stimulate the camera

## ★ TAKE PICTURES EN ROUTE



• Take pictures as you approach or leave scenic places as well as right on the spot. In the Black Hills, for example, there is the famous Mt. Rushmore Memorial group of gigantic heads of great American leaders carved out of a mountainside. This picture, taken from 15 miles away, shows a double-spiralled road in the foreground where it crosses itself on a log trestle. In the distance the monument stands out from the surrounding forest. Data: View camera, Defender XF Pan film,  $f/50$ ,  $1/5$  second. The lens was stopped down to keep foreground and distance all in focus. By Rus Arnold.

• Many apparently ordinary occurrences en route make interesting vacation memories later. Photograph friends and traveling acquaintances, but also get a shot or two of fellow passengers as they set out. Here is a college student, with his luggage covered with stickers from the various colleges where he has taken part in athletic events. Other typical travellers wait their turn to get on the bus. Watch for chances to get character studies of a business man, a honeymooning couple, a priest. All along the way, as new passengers get on, you'll find chances for these shots. By R. I. Nesmith.

eye and the shutter finger.

Some examples of the types of pictures you will want to take are given in the pages that follow, with full information on types of pictures and how to take them. Plan your pictures, as the only thing you can't buy for your camera is a little forethought.

• **VACATION BEGINS THE MINUTE** you get into your car or load your bags into the station-bound taxi. Keep your camera handy at all times with the lens set at about 12 feet,  $f/8$ ,  $1/100$  second, or whatever conditions around you call for. This will permit "shooting from the hip" if need be.

Carry extra film and accessories in a safe, cool place. A car's glove compartment is not recommended, so use a separate kit bag.

Be the first one out of trains, cars and

buses in order to shoot from the platform. When the background is interesting, run ahead of them, pick a good spot, focus on it and shoot as your companions walk unsuspectingly into the viewfinder image. A shutter speed of  $1/100$  of a second will stop the action of pedestrians walking toward the camera.

For "enroute" pictures, also allow yourself to lag behind once in a while so you can include your companions in pictorial scenes.

For shooting from the inside of moving trains and airplanes, use a shutter speed of  $1/200$  and hold the lens as close as possible to the glass so as to prevent reflections from being picked up. Do not let any part of the camera touch the glass because of vibration.

Information on what shutter speed to use for all kinds of moving subjects is given in the "Photo-Data Clip Sheet" on page 69.



• Sunset taken through a porthole on the Pan-American Clipper between Cuba and Miami. The pontoon and strut of the plane were placed in the picture in such a way as to shield the sun from the lens as much as possible, thus avoiding halation and reflected light on the wing of the plane. Seen from 8,000 feet the ripples on the sea below form an interesting pattern through the clouds. Data: Rolleiflex camera, K-2 Filter, f/11, 1/100 second. The relatively fast exposure counteracted the vibration of the plane. By Elizabeth Hibbs.





## ★ ANIMALS ARE PHOTOGENIC

• Pictures of animals in the zoo can be made to look as if they were taken in natural surroundings, if you are careful to eliminate all signs of captivity, such as bars, cages, or peanuts. DATA: Made with a Leica camera, Agfa Isopan film, f4.5, 1/100 second. "Playmates" by Riccardo Moncalvo.

● ANIMALS CAN BE AS INTERESTING as people, and far less annoying. Who ever heard a cow insist that "My right profile looks better than my left"?

For wild animals and birds you will need a telephoto lens and patience. You can partly substitute for the lens by using fine-grain film and enlarging a great deal, but there's no substitute for patience. Try to out-think your prey. Pick a spot he has to come to: a water-hole, his den or nest, or a break in a wall or fence. Get your camera set and wait, keeping yourself out of sight. For birds in a nest you can fasten your camera in place, get off at a distance, holding a string attached to the shutter. When Mama or Papa Eagle (or Sparrow) comes home with a Rabbit (or Worm) for the family, pull the string and you have your picture. Learn a little

about the animal's habits before you start. Imagine your dismay if you set out to photograph a beaver at noon, and then learn they only work the night shift.

Domestic animals are a lot easier but no less fascinating. Try to arouse some expression: awareness, anger, fright, curiosity. For a dog, cat, or horse, whistle just before you press the trigger, and watch the ears go up!

Animals in the zoo are always fun, and it's a toss-up for popularity between the sea-lion and the polar bear. Remember the rest of the menagerie, too. For best effect, shoot between the bars of the cage to eliminate signs of captivity, but be careful—if an irate keeper doesn't catch you a playful tiger might! Ask permission from the former, (who will generally give it) and assume you have none from the latter, (who usually objects).



• You may not have an opportunity to shoot tigers in the jungle, so that is where the museums come in. "At the Waterhole" was made in Akeley Hall, at the Museum of Natural History, New York. Avoid reflections in the glass sides of the case. By R. I. Nesmith.

• At least one good gull picture is needed to make a seaside vacation really complete. Foth-Flex camera, yellow filter,  $f3.5$ ,  $1/500$  second. A telephoto lens is useful for closeups like this. By H. E. McCord.



## ★ HIKING AND CAMPING



● Simplicity is the keynote here. Two girls on a wind-swept mountain top, a few bare rocks, some branches, and plenty of sky. The effect is coolness, quiet, and charm. The ground may only be two feet below on the other side of the rocks, or the girls may be looking down on seven boiler factories and fourteen railroad locomotives; but here all is peaceful. Even undue detail in the girls' clothes has been subdued by the back-lighting, and clouds kept down to just a suggestion in the lower right. The motion in the branches to the right, normally objectionable, suggest wind. By H. W. Fechner.

● MORE AND MORE WEARY CITY-dwellers look to the cool forests and wind-swept mountain tops for real relaxation.

While hiking through the woods have the camera always ready for action, but protect it from scratches and bumps. On long climbs attach small cameras to your belt rather than across the chest where the strap may bind and impede breathing. Filters are indispensable: yellow for clouds, green for more natural rendering

of green grass, trees and woods on a pan film, red for dramatized clouds and extreme contrast on pan film or for moonlight effects. Close-ups of flowers, mushrooms, or herbs are best made with a long-focus lens or a copying attachment, and a tripod.

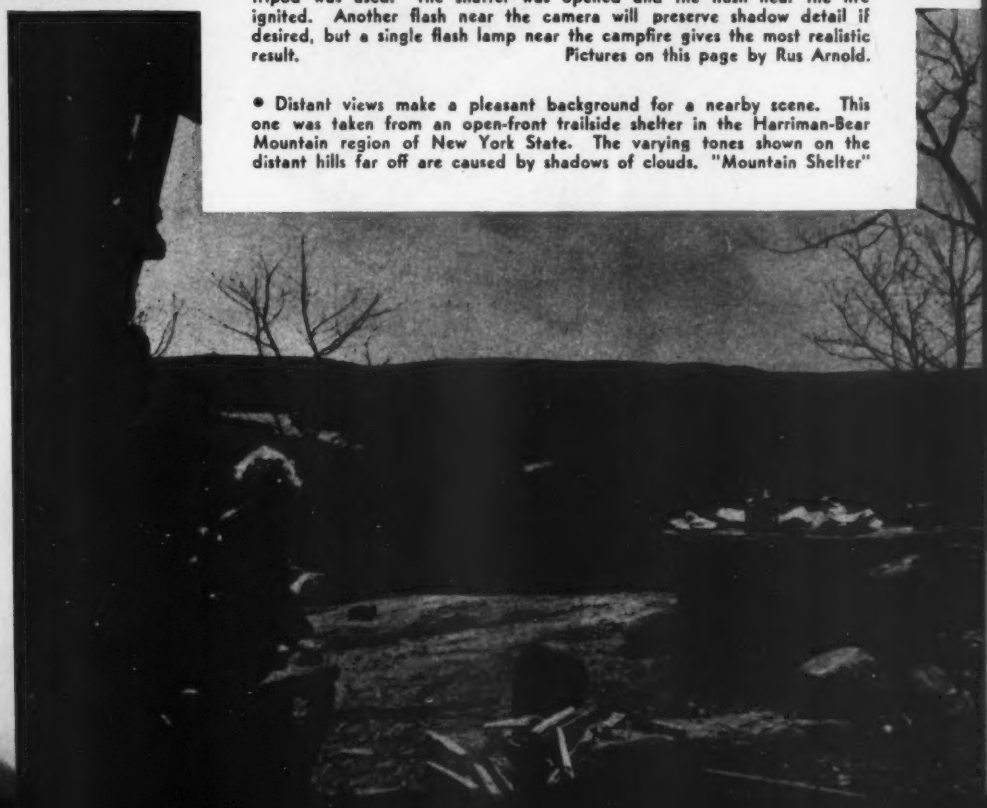
Were last year's "vistas" failures? Try "framing" them with an arch of trees, or one or two of your companions in some suitable position in the foreground.



• For pictures of the campfire flashbulbs come in handy. Flash powder can be used, but is dangerous. In this picture a  $3/4 \times 4 1/4$  Maximar on a tripod was used. The shutter was opened and the flash near the fire ignited. Another flash near the camera will preserve shadow detail if desired, but a single flash lamp near the campfire gives the most realistic result.

Pictures on this page by Rus Arnold.

• Distant views make a pleasant background for a nearby scene. This one was taken from an open-front trailside shelter in the Harriman-Bear Mountain region of New York State. The varying tones shown on the distant hills far off are caused by shadows of clouds. "Mountain Shelter"





★ PHOTOGRAPH YOUR FRIENDS





• Silhouettes lend themselves well to story-telling pictures. An extremely short exposure records the home-coming girls and the welcoming boys dark against the sky and shows just enough of the masts to set the scene as one of graceful ships and pretty girls. "Welcome Home" by Robert Weitzen.

• **THE MOST PLEASANT SOUVENIRS** of any trip are the memories of your friends and traveling companions. Show them at play, get character studies in close-up of their expressions, and try to

include just a suggestion of where they are.

Backlighting will soften the shadows on their faces, and your sunshade permits shooting at an angle to but not directly into the sun. To keep the sun from shining right into the lens on shots that are backlighted, have a bystander cast his shadow across the camera, making sure the lens is well inside the shadow cast. This is a fair substitute for a lens shade.

←  
• Going on a vacation? No matter what its size, don't forget your camera! Here again a low viewpoint, placing the model against the sky, simplifies the background and concentrates your attention on the center of interest. "The Miniature Photographer" by C. W. Manton, Bukoba, East Africa.

★ "ANGLE" FOR THE BIG ONES

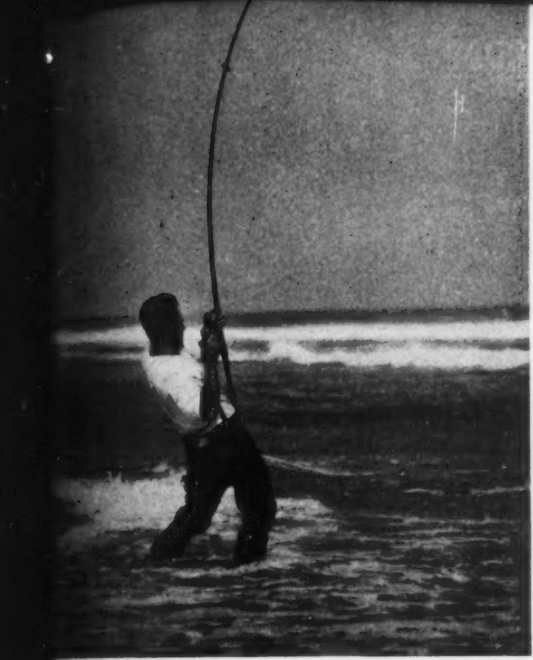


• Wear your bathing suit and hold camera high out of the spray when you wade after pictures like this one. Keep an eye out for waves lest a big one sneak up. If fish are not biting you can "fake" the action by tying a weight to the far end of the fisherman's line. By H. Armstrong Roberts.

The alert candid cameraman will sneak shots of sister's expression as she threads her first worm onto the hook, dad's consternation as the ten-pound bass turns out to be an old shoe, Junior's joy as he lands a real-honest-to-gosh fish.

On all shots near water, over-exposure is a common fault. Half normal exposure is advisable. Get into a bathing suit or waders to get close enough to your subject; get as wet as you like—but keep the camera dry and don't let spray give the lens a shower.

Action shots of a fisherman straining at his task, his pole bent double, or of the angry fish leaping into midair in a desperate attempt to throw the hook, are worth a try. Get both in the same negative and you've caught something to be proud of. For fighting fish you will need a telephoto lens and high-speed film. For the fisherman himself tie the far end of his line to some rock, or have somebody hold it just outside the picture; then let him tug away full blast.




• "YOU SHOULD HAVE SEEN THE one that got away!" Whether fish, or picture, don't expect your listeners to believe you. Make sure your hook's tied on right, and take the lens-cap off the camera.

Fishing-trip pictures can be scenic, pictorial, genre, or action.

→  
• The Great Northern Pike is a ferocious fighter and occasionally an extremely agile acrobat, but is unusually camera-shy and does his fighting beneath the water. This, added to the countless other problems, make the picture a prize-winner. Auto-Graflex camera,  $3\frac{1}{4} \times 4\frac{1}{4}$ -inch Agfa Super Plenachrome film,  $f4.5$ ,  $1/1000$  second. Micrograin-85 fine grain developer was used so that a tiny section of the film could be selected and enlarged. By Clement Crouch.

←  
• A modernized version of an ancient theme, with Big Sister and Cousin Jenifer pinch-hitting in a most charming manner for the Freckle-Faced Boy. Back-lighting separates the models from the backgrounds, makes the fishing poles stand out, and subdues uninteresting details in the trees. Sometimes a synchronized flash will pep up a picture of this sort by retaining foreground shadow detail. To gauge exposure when synchroflashing such a picture, expose according to meter, use a small flash bulb, and move closer in or further back to make the flash exposure balance the meter reading. TITLE: "The Barefoot Girls" by Orville Logan Snider.



★ WEATHER IS ALWAYS "GOOD"







• Fireworks pictures like this are as much fun to take and as easy to get as lightning pictures, and there is much less chance of getting your camera wet. If the foreground is bright enough to record on the negative stay at least 75 feet from the foreground lights and they will be in sharp focus when the camera is focused on infinity for the bursts in the sky. Expose several bursts on the negative. "Fireworks at Coney Island" by Philip D. Gendreau.



• When making rainy-day pictures through a water-spattered window, as in this picture, move the camera far enough from the window to show the raindrops and the subject beyond the window in sharp focus. Subjects close to the window give the sharpest effect. A small child in a raincoat peering through the window with a big smile, perhaps waving for you to come out will give you a picture with a real vacation mood in it. "Fugitive" by John Allen.

• IF YOU'RE LIKE ME, IT WILL rain every day of your vacation except the afternoon of the day you pack to go home. Don't let it bother you. You can still bring home some of the best vacation pictures ever taken.

If you are sitting at the window watching the drizzle—photograph it instead! The rain-spattered glass makes a frame, but if you don't like the blurred effect open the window wide.

Lightning pictures are easy to take. Set the camera on a steady support, such as a window sill or porch railing, if your

tripod isn't where you can get it quickly. Point the camera at the sky where the lightning appears and hold the shutter open for several flashes. When this kind of picture is taken after dark, the shutter may be left open for many minutes, if the flashes are infrequent. But don't move the camera while the shutter is open.

For fireworks in the sky the same method will give excellent results. You may even want to try color film on the brightest fireworks if you have an  $f/3.5$  or faster lens. There'll be fireworks for your camera, after the Fourth of July, at the State Fairs and of course they'll be blazing into the sky all season long at the Fairs on either coast.


If you travel in bad weather, get a few shots from inside the car or train. Show the traffic policeman with rain in his face, or the railroad station agent. If your boat runs into a storm, thank your lucky stars. You're in for some real action pictures—if you can stand it!

←  
• (Opposite page) Don't be afraid of the weather and you'll get some of the most striking pictures of your whole vacation like this one taken when a summer thunderstorm came up at night. Set the camera on a tripod, focus at infinity and point the lens toward the part of the sky where you see the most flashes. Open the shutter and wait until several flashes have blazed. A diaphragm setting between  $f/4.5$  and  $f/8$  will work. "Lightning Over the Sea" by Schwarz from Monkmeier.


## ★ SHIPS ARE EASY TARGETS




• Some of the best vacation pictures are "staged" or "framed" if they do not happen just the way you want them to. A little imagination, a few simple props, and a cooperative subject will give you negatives you will want to cherish. Here a simple foreground against a criss-crossing pattern of spotlights from the battleships in the background make a story-telling picture. Made at night in Portland, Oregon. 4x5 Speed Graphic camera, Superpan Press film,  $f4.5$ ,  $1/10$  second. Even stay-at-home photographers cannot escape the war fever. "No Shore Leave Tonight" by Stivers Vernon.



• You can get beautiful vacation water pictures using just a few details. In the above, the photographer combines an oar poised in air, a little swirl of water, a suggestion of shore-line—and look at the result! Keep unimportant details, in this case the side of the oar, in the shadow, and shoot the picture with cross lighting to catch the shiny wet surface of the water. Zeiss Ikon A camera, Super-X film,  $f/9$ ,  $1/300$  second. "Disturbed" by Dr. M. A. Obremski.



• (Above right) Put a nautical background on your shipboard pictures. Stairs, railings, guy-ropes, funnels, bulkhead plates, lifeboats, smokestacks, anchors—anything that will make your picture show where it was taken and give that feeling of being on a ship. There are many easily-accessible overhead vantage points, or you can shoot up from a lower deck and place your subjects against the sky. Taken at 9:00 a. m., Automatic Rolleiflex camera, Panatomic X film,  $f/5.6$ ,  $1/100$  second. "Sea Air" by Bernard G. Silberstein.

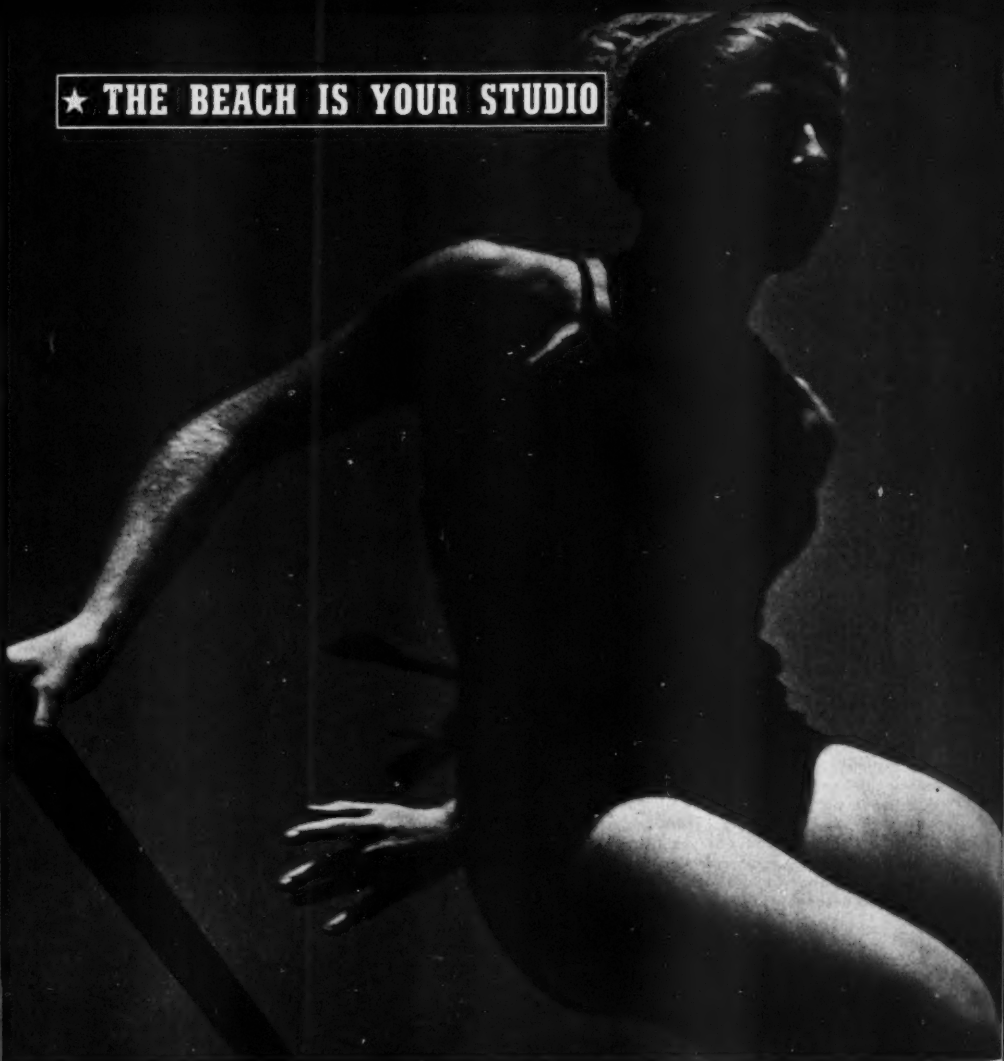


• For pleasing pictures of the shore from shipboard, frame the shots with some characteristic or familiar object on shipboard. In this picture the larger boat from which the photograph was made is contrasted with the small motorboat and its single occupant. Notice how this contrast is achieved by a mere suggestion of the bulk of the larger boat from the framing details included. The shore line aids in tying the picture together. In pictures of this sort keep the framing objects in sharp focus. Taken at 6:30 a. m. Automatic Rolleiflex camera, Superpan Supreme film, yellow filter,  $f/4$ ,  $1/100$  second. "Havana Harbor Sunrise" by B. Silberstein.

• **WHETHER YOU TAKE A SAIL IN** a little catboat or cruise in your own 75-foot Diesel-powered yacht, you will want some "marine" pictures. Remember two basic rules: (1) Use one-half normal exposure, because of the brilliant light encountered on the water. (2) Keep the lens, camera, and film dry.

The deck games, varied human types, and the girls in their fashion-page costumes are some of the subjects you will want to remember. Make it a point to use simple props such as the ship's rail or lifebuoy. These will help convey the exotic atmosphere you have travelled so far to find.

## ★ THE BEACH IS YOUR STUDIO



• Here is a fine example of telling a story with just part of the subject. An extreme close-up makes the picture much more emphatic by leaving a great deal to the imagination. You do not have to see the beach or the water, or know that people are watching. The expression on the model's face tells us all that. A short section of the railing over which she has leaped represents ably the platform of which it is part. The darkened sky and cross-lighting heighten the effect. High shutter speed is absolutely essential for such pictures, but the camera need not be close up, as much can be trimmed out of the negative in enlargement.

"Jump" by Michel Graner.

• IF YOU KEEP SAND OUT OF the camera, your vacation at the beach will be a lot of picture-taking fun. The pictures on these pages give only a small idea of the thousand-and-one varieties of pictures possible, from the crowd shot at Coney Island to the solitude expressed in Constance Phillips' leg shot.

High shutter speeds will be needed if you want pictures of people running, jumping, diving, splashing, but you will usually find ample light to make fast films unnecessary. Take along a filter for cloud effects, and keep the sun and the water out of your lens.

For just sea and beach, try an over-



• Diving pictures are always graceful and are easy to shoot if you use a low viewpoint and show the diver against a plain background, preferably the sky. 4x5 Speed Graphic camera, 8 1/4-in. Goerz Dagor lens, Superpan Press film, f11, 1/1000 second. Developed in DK-50 and printed in Brovira Glossy. "Poise" by Rus Arnold.

• A pretty young mother, a happy infant, water, and sky make a foolproof formula for pleasing vacation pictures. The action was caught at the peak, where movement is negligible, after the motions were practiced a time or two. Rolleiflex camera, K-2 filter, Panatomic film, f8, 1/300 second. "Ups-A-Daisy" by Elizabeth R. Hibbs.

• In this picture and the one called "Legs, Sand, and Sea" suggestion is used to tell a story as forceful as the bluntest statement. Here is a picture that could be taken on any beach anywhere in the country this summer, and there are enough variations so that everybody can take a different one. Leica camera, Eastman Background film, f12, 1/100 second. Champlin 15 developer. "Calisthenics" by S. J. Ressetar.







• Although a wide-angle lens makes this kind of shot easier to get, the standard 50 mm. lens on a miniature camera was used to frame the beach and the horizon beyond the casually posed legs of the spectator. Shots like this can be used in a series showing how sister reacted when the little crab nipped her ankle. Try it. Leica camera, S. S. Pan film, K-2 filter,  $f/6.3$ ,  $1/200$  second. "Legs, Sand and Sea" by Constance Phillips.



• If everybody else comes down to the beach the day you bring your camera, get one shot like this to remember the crowd and then look for detail shots like the one at the top of this page. Even on a crowded beach there are hundreds of shots of children playing, picnic lunch baskets, and closeups of people talking, laughing, squinting, yelling and giggling. A candid cameraman's paradise. They'll be a lot of fun to look at when the summer's over. "Coney Island in the Summer" by Harold G. Swahn.

head shot, with the wave retreating from the shore. If there are rocks, try a low angle and shoot just after the wave breaks. A fast shutter speed will freeze the spray's action and make it look artificial. Shoot at  $1/100$  second or slower. Out on the rocks you will find interesting patterns of swirling water, and in the early morning or late afternoon the sun adds sparkling highlights to the boiling waves. This is the place to get close-ups of crabs, lobsters, etc.

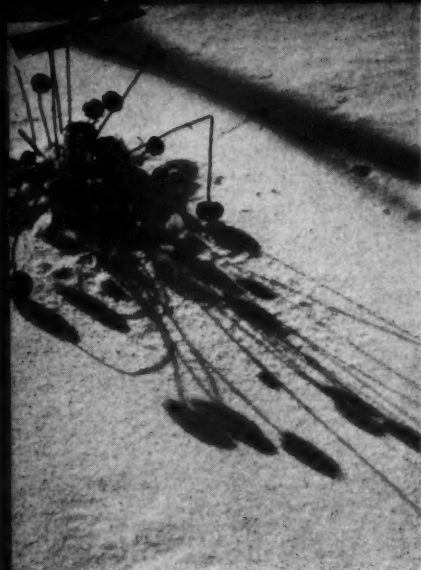
At public beaches you will have a chance to use your angle viewfinder or any other gadget or trick you have for sneaking pictures if people eating, sleeping, doing tricks, or making love. For tips on "sneak shots" with a small reflex, see page 82. If there is a diving board choose a low viewpoint to silhouette the diver against the sky. If your shutter doesn't go over  $1/50$ , choose the instant when the diver is at the top of his leap. Avoid getting the subject against a background of confusing objects; if possible shoot him against sky and use filter for clouds.

(Page 85, please)





• Lift your water pictures out of the ordinary class by taking them when the sun is just low enough to silhouette the figures and make the water sparkle, but not so low that it will flare into the lens. Don't forget your lens-shade on pictures like this, and keep your exposure short. "Splashing Figures" by Victor de Palma from Black Star. DATA: Rollicflex camera, Agfa Superpan Supreme film, f/11, 1/200 second.



● This photographic copy of an ancient needle print (above) illustrates the characteristic Japanese use of the lower left hand corner of a composition as point of eye entry. Fig. 1

● "Seed Pods," straight print (left). Compare with reproduction on next page. Data: Taken in late afternoon sunlight for long shadows, Panatomic-X, 1/10 second, f32, negative developed in DK-20. Fig. 2

● WE READ FROM LEFT TO right. A twining vine coils about its support in left to right direction. The earth revolves from left to right, and likewise the human eye likes to enter a picture from the left and travel toward the right toward a center of interest.

An established point of eye entry, as incorporated in a picture, is a necessity appreciated by Japanese artists ages ago. Fig. 1 is a photographic copy of a very old Japanese needle picture done with silk and illustrates that these artists knew that pronounced lines and eye travel is most effective when it begins at the lower

left-hand portion of a picture, as does the water inlet in the illustration.

The subject for Fig. 2 looked like interesting material when it was photographed. In the print, however, the center of interest is at the upper left. Eyes viewing the picture enter there, come to the area of greatest contrast and stop.

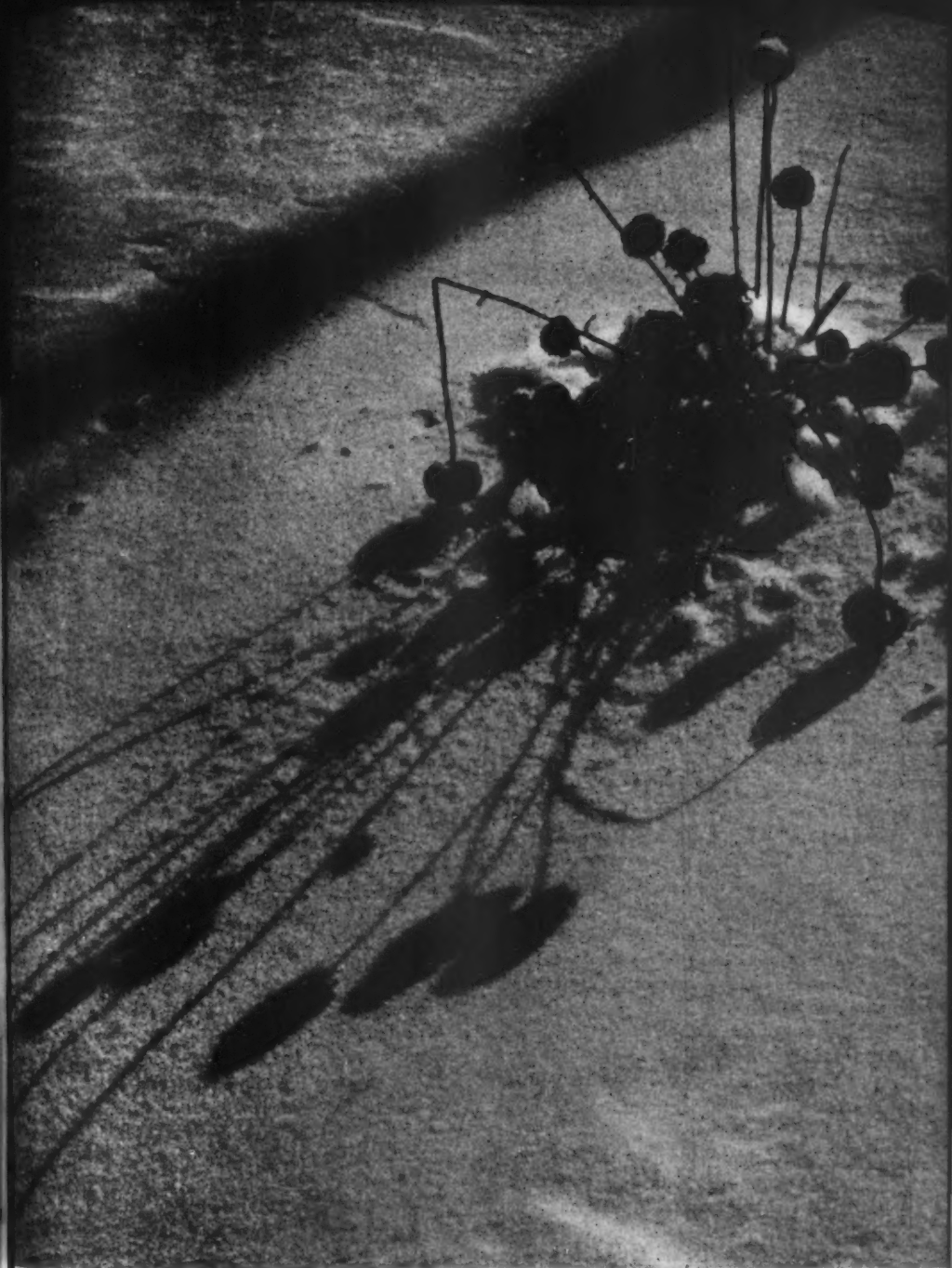
By turning over the negative in the enlarger and printing through the back, the composition was reversed for the result shown in Fig. 3, where the lines of vision enter easily at the lower left and travel toward the right to the center of interest of the composition.

# MAKE THE EYE ENTER

*By Guilford Lee*

Illustrated by the Author





● "Seed Pods," from same negative as Fig. 2, except that negative was reversed or "flopped over." This shifted the point of eye entry from the lower right to the lower left of the composition. Experiment with both sides of your negatives. Reversing not only changes the entire composition, but also often reveals unsuspected possibilities.

Fig. 3



# HOW TO USE

A renowned portraitist describes his lighting method and technique

## ARTICLE 1: "HOT SPOTS"

● DO IT THE EASY WAY. DON'T expect that some miraculous new developer is going to alter your poor lighting contrast in development.

Light correctly. If you "burn 'em up" with contrasty lighting, nothing much can be done. It only takes a second to alter the distance of a light from your subject. Sometimes a distance of six inches will save a "hot spot" on a face. Learn to recognize "hot spots" when you see them at the time of the exposure. This means that you must educate your eye.

Amateurs and exhibitors, who have attended some of my lectures on lighting in portraiture, still show me negatives and prints that are badly burned up in various spots.

● The young lady in Fig. 1 has an almost perfect photogenic face. However, a spot light has "burned up" the right side of the face and body. Her nose in reality is not nearly as broad as it appears in this photograph. The "hot spot" on the side of the nose broadens it out. The side of the face and forehead are also over accentuated by the rays of the light falling across the face.

In spite of the bad criss-cross lighting in this portrait, the subject's youth and beauty almost save the day. Notice how the textures in the material of her dress are "burned out" on her right side.

Use of a viewing filter helps educate the eye. The "blue glass" brings the scale of what you see in light values very much nearer to what your negative will record.

A trick that I have found helpful in avoiding "hot spots" is to squint your eyes down to about "f22." The over-lighted places will then be much more apparent.

The anatomical construction of the face

can be completely altered in a photograph by incorrect lighting. Let us examine a few examples of just how much high lights influence the appearance of the features in portraiture.

● Fig. 4 shows a young man who fortunately possesses a very photogenic face. His nose is almost completely straight at every angle. Now let us see what can be done by incorrect light emphasis on that straight nose. In Fig. 2, for example, one spot light leaking over the face is enough to cause a "hot spot", distorting the nose, and giving it a bulbous appearance.

Observe, in Fig. 4, that there is a high light down the bridge of the nose. On each side of the high light the nose is shaded down or shadowed. This is what most painters call "bridging the nose."

In Fig. 3, there is an absolute reversal of this procedure. The bridge of the nose is shadowed. There is a high light on the right side of the nose which should have been shadowed down. The left side has a "hot spot", which, by its position and intensity, in relation to the other high light and smaller conflicting shadows, makes the nose appear to be *crooked*.

Studying Fig. 4 again, notice that both sides of the face are shadowed down, with the deeper shadow on the left side of the face. In Fig. 3 just the opposite effect is seen. The jaw is outlined with light. The ears also are over-lighted into distressing prominence. The high lights are just where they shouldn't be and most of the

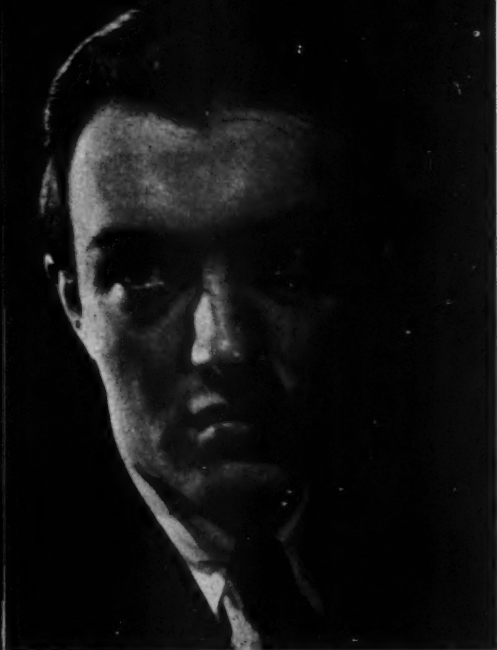
→  
● To control the contrast a floodlight was used in this illustration. Data: View camera, 5 x 7 Defender XF Pan, 10-inch Zeiss Tessar lens, 1/2 second at f16. Use of a lens of relatively long focal length is recommended in portraiture. Fig. 1

# YOUR LIGHTS

WRITTEN AND ILLUSTRATED BY JOHN HUTCHINS, A. R. P. S.







● The unpleasantness of this harsh side light is not at all helped by the fact that the subject moved at the time of the exposure. Notice the double catch lights in the eyes. These tiny flecks are the quickest indication of movement. Fig. 2

● In this picture, the exposure and development were quite correct, but the face is so distorted and improperly spotted up with harsh lighting that there is not much that could be done to remedy this unfortunate result. The nose is so distorted that it appears bulbous. Fig. 3



shadows are in the wrong places. All of these mistakes in Fig. 3 were caused by incorrect back lighting. Two spot lights were used at a 45-degree angle from the back and sides of the subject and a flood light was used for front lighting. If only the two spots for back lighting had been used, there would have been yet greater contrast and the result would have been even worse.

● Spot lights are very important in achieving a third-dimensional effect. Be very careful how they leak over onto the face.

Fig. 5, "Man in Ruff", has received top honors in several important salon exhibitions, notably at the Pictorial Photographers of America's Exhibition in New York, where it was acclaimed as the best print in the show.

Observe that the strongest point of light is on the forehead. However, this spot is not "burned out." There is ample recording of skin textures. The photographer should be constantly working to get his high lights as brilliant as possible without washing them out.

Fig. 6 is a portrait of Pete Martinez, one of the world's most famous cowboy artists and rodeo contestants. The lighting on the clothes and hat is well balanced. It brings out the textures very well, but look at the "hot spot" on the forehead! I do not deny, that by some very fancy dodging it is often possible to "print in," in enlarging, one of these "burned up" foreheads. It would be a thousand times easier to spend the same amount of time lighting correctly, in the first place, rather than dodging your life away on each print in the darkroom. Light it right! It's easier!

There is a method of reducing dense spots on negatives by rubbing the spot with abrasive paste. I have never found this method of procedure very successful when used on faces, because skin textures invariably suffer when this abrasive method is used. In Fig. 7, I attempted to abrasion down and reduce a "hot fore-



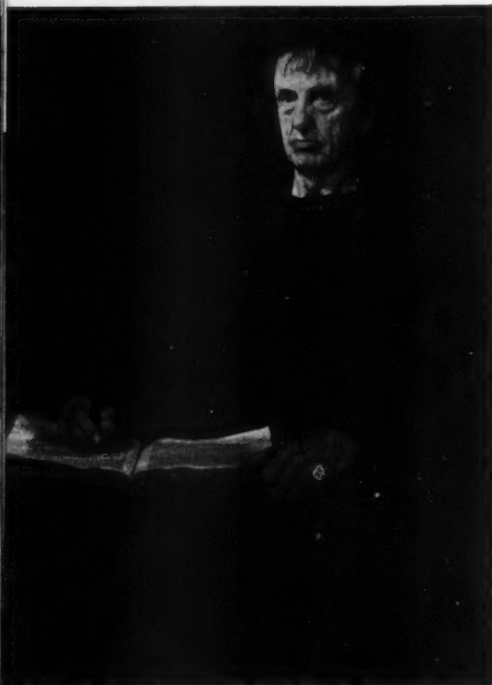
• In this picture the hair was high lighted by a 500 watt condenser spot on a boom almost immediately behind and somewhat above the subject. The light hitting the right shoulder and touching the left lapel adds a pleasing touch of proper emphasis to the clothes. Although the back light does not register on all of the head, it helps add separation from the background. There was a small Fink-Roselieve spot-light shining on the neutral colored background almost immediately behind the head. Exposure 1 second f14.

Fig. 4

head." It is almost impossible to get an even result. The forehead after abrasioning, appears to have dark patches and looks as if the skin is dirty.

● In commercial photography or dramatic interpretations in advertising there are occasionally reasons for using emphasis in lighting that from the standpoint of portraiture might well be considered very incorrect. Fig. 8 is such an example. A door is supposed to have just opened behind this young man. As the director of the scene I wanted the actor to show fear and apprehension. The hot spot therefore on the left side of his face is all part of the story which is being portrayed. It

● Good and poor lighting are both illustrated here. The hands retain some of the desired texture of age, but the face is burned up by excessive illumination into an unnatural and detailless white. One 500 watt spot was used as a main light source. The secondary light was a 1,000 watt diffused flood light. Bringing the flood closer to the subject would have helped balance the lighting and reduce the amount of contrast in the picture. Defender XF Pan, 1 second at f16.



really helps the picture. We were thinking of the opening door and unwelcome visitor. If we were attempting to take a portrait of this young man, this very same light spot would be a very definite distraction in the picture. It would not help in any way in the presentation of his facial construction or in the recording of his personality.

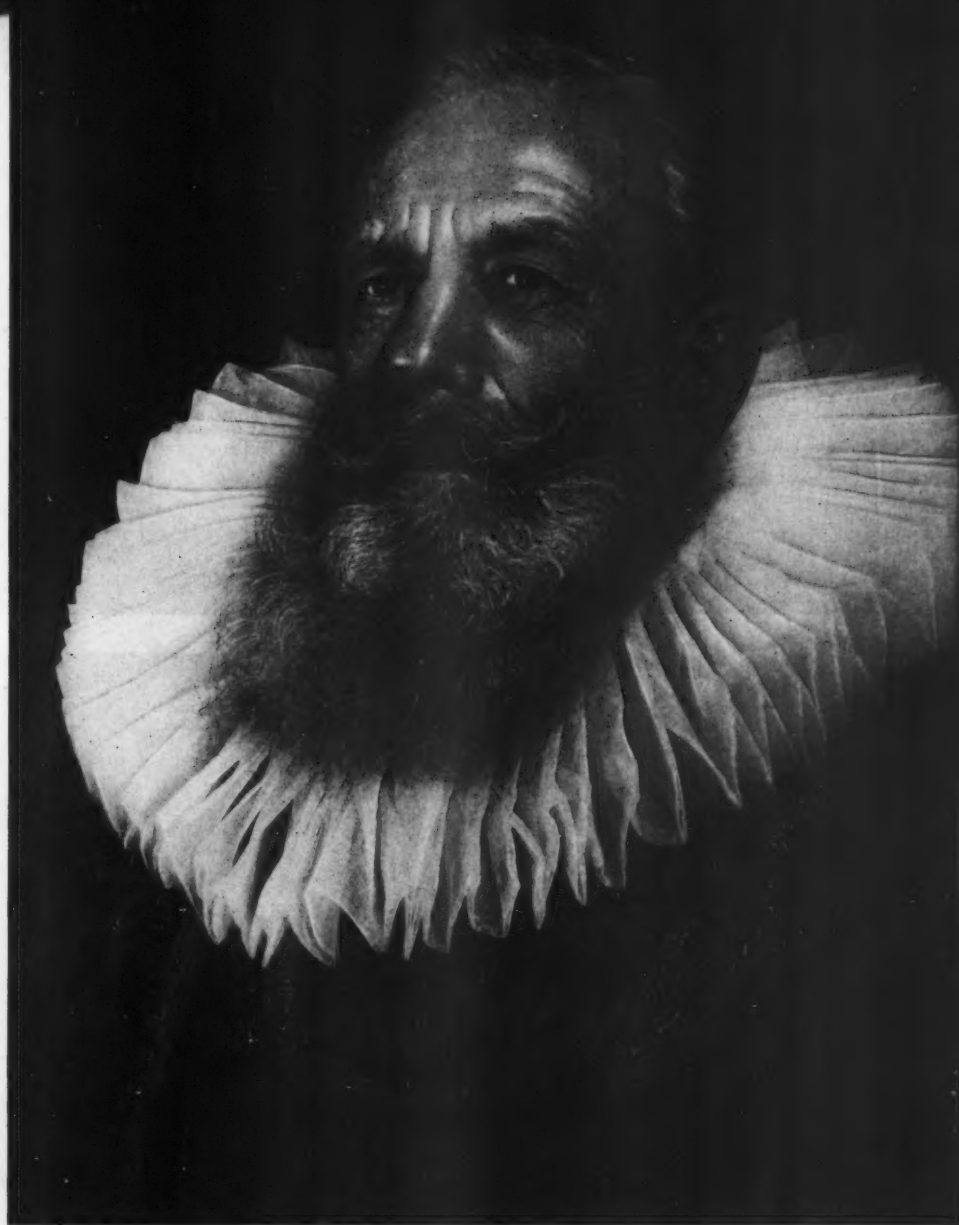
We hear a great deal these days about Rembrandt lighting. Almost every photographer interprets this type of lighting in a different way. It is quite true, that Rembrandt was inclined to use a strong indication of light coming from one direction. However, results like Fig. 9 are not at all like Rembrandt's paintings as far as lighting is concerned. I believe that photographers have forgotten that shadow detail can be indicated by color. However, when the Rembrandt paintings have been reproduced in black and white there is an appearance of contrast which does not exist in the original paintings.

Fig. 10 shows the same kind of lighting except that more illumination is used on the shadow side. Personally, I do not consider this type of lighting as being good for portraiture. I do not like equalization of light and shadow. One side of the face is brilliantly illuminated, there is a line of demarcation down the bridge of the nose and the other side of the face is in semi-shadow. I find this type of lighting much too symmetrical in effect and it does nothing to help in presenting the head as a sphere.

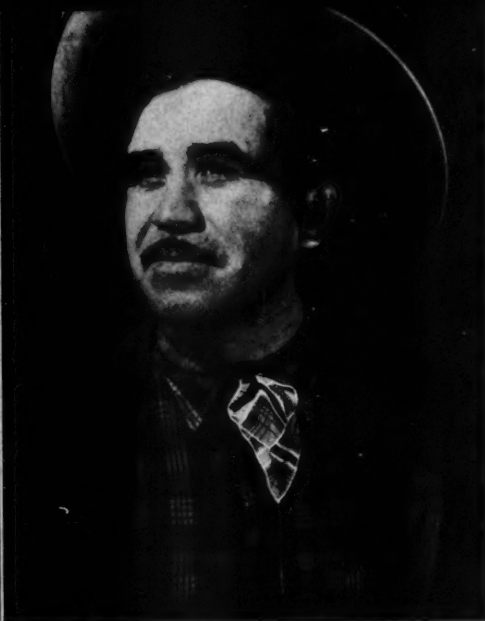
If you visit a museum and study the original Rembrandt paintings, you will see that there are not any hot spots on the face. This popular misconception is undoubtedly due to the photographic reproductions in black and white "blocking up."

In Fig. 11, note how the side of the nose appears to be swollen by a small patch of light which has sharp edges. The collar also is a little too bright and there is slightly too much emphasis on the hand.

NEXT MONTH: The second in this series by John Hutchins, A.R.P.S., on "How to Use Your Lights."—Ed.



● "MAN IN RUFF." One of the most difficult problems for a photographer is to achieve a feeling of separation between two objects of almost the same tone. I have never had a more difficult job than photographing this grey beard in immediate proximity with the white ruff. It was necessary to show textures in the ruff and also light it evenly and yet not under-light the beard. This is one of eight negatives. Fortunately, this negative had the happy combination of lighting and expression. Fig. 5



● (above) Note the chalky, "burned up" forehead. This excessive contrast could have been controlled by opening up the angle of the light. Fig. 6

● Toning down, brings detail into the forehead. Fig. 7

● (right) In special cases, unorthodox lighting is necessary as in this illustration where a light from behind was used to show that a door had been opened behind the subject letting in a shaft of light. Fig. 8





● A single flood light was used on the right side of the subject. (Upper left) This type of lighting is often used erroneously as "Rembrandt" lighting. Fig. 9

● In this picture (above), a secondary flood light was used to illuminate the shadow side. Fig. 10

● (Left) Care should be exercised with subjects who possess irregular features when back lighting is used. The irregular features are apt to cause irregular shadows of the nose or ears. Fig. 11



# QUESTIONS AND ANSWERS ON CHAMPLIN 17

BY HARRY CHAMPLIN

● MANY AMATEURS AND PROFESSIONAL photographers have written to me about Formula 17, describing their success with it or saying that they had a question or two to be resolved before proceeding to obtain the chemicals and prepare the solution for themselves. Here are some of the questions and answers which have been made in the brief three months since Formula 17 was announced.

*"Is Formula 17 suitable for 35mm films?"*

Formula 17 can be used to develop any size film, from 35mm to 8x10 inches and even larger. This is the best developer I have so far made; it is definitely superior to formula 15 in evenness of grain structure and ease of use, and has a higher emulsion speed and much more brilliance than formula 16. Formula 17 was compounded specially for the users of ordinary roll film because such films seem to cause a rapid breakdown of the ordinary fine grain developers. This breakdown cannot be accurately gauged and is more apparent with developers containing paraphenylenediamine.

*"Do you have to use any special fixing bath?"*

No. With temperatures below 70° fahrenheit you may use any one of the prepared fixing baths such as those sold by Eastman, Agfa, Defender, etc. For higher temperatures use the Eastman F5 formula. Defender supply a similar formula in package form.

*"What is constant agitation?"*

Constant agitation means that the solution is always in motion, always moving over every part of the surface of the film. The best way to agitate is to take the

## CHAMPLIN 17

	Avoirdupois
Water .....	24 ounces
Metol .....	10 grains
Sodium sulphite .....	1466 grains
Diethylene glycol .....	25 minims
Triethanolamine .....	30 minims
Chlorhydroquinone .....	49 grains
Water to make .....	32 ounces

Working solution to be used without dilution. Agitate vigorously during development. Increase development time one minute for each roll developed per 16 ounces of solution.

● This formula may be reprinted, providing credit is given to "MINICAM PHOTOGRAPHY MAGAZINE". Questions and comments may be addressed to MINICAM or to Harry Champlin, 9488 Santa Monica Blvd., Beverly Hills, Calif.

## TIME-TEMPERATURE TABLES

For normal negatives (gamma .8), develop as indicated below. Exception: Panatomic X film, which is a Group C film, should be developed as in Group B.

For Group A films (Weston daylight rating 100).

Develop	9 1/4 minutes	at 65°
"	6 1/2 "	70°
"	4 "	75°
"	2 1/2 "	80°

For Group B films (Weston daylight rating 50).

Develop	8 1/2 minutes	at 65°
"	6 "	70°
"	3 3/4 "	75°
"	2 1/4 "	80°

For Group C films (Weston daylight rating 24).

Develop	7 3/4 minutes	at 65°
"	5 1/2 "	70°
"	3 3/4 "	75°
"	2 "	80°

● The formula for Champlin 17 is reprinted above in response to many requests. It first appeared, exclusively, in MINICAM (April). Included in that issue were the volume measurements for preparing the formula without the use of a chemical balance and the Weston emulsion ratings for amateur films. Champlin 17 is a new developer, suitable for negatives of any size.



• Technical data by a number of the nation's ranking photographers frequently include the notation, "Negative Developer: Champlin 17," as in the case of the above by John Swope. Additional data: Rolleiflex camera, Zeiss lens, Agfa Superpan Supreme Film.

tank in hand, cocktail shaker fashion, and keep it moving. The little spinners supplied with some tanks are actually of little value since it is almost impossible to get the developer inside the spiral and keep it in motion with the same force of movement present at the outside of the spiral. If you have one of these tanks put a rubber cork in the top and cut a piece of rubber eraser to fit into the opening around the edge of the lid, then wrap the tank in an old towel and keep it in motion. Incidentally, the towel will be ruined for all other purposes.

*"Can the Sodium Sulphite solution be made up in advance?"*

Yes, this is certainly the easiest way. Sodium Sulphite solutions are stable

enough for periods of ninety days, provided, of course, they are stored in cool places, and not subjected to much heat. Some breakdown does take place, though this is not enough to worry about.

*"Do you have to use special brands of chemicals?"*

No. In compounding formula 17 Kalbfus and I took into consideration the fact that any chemical recommended or used should be available to anyone desiring to make up their own solutions. All that we ask is that you use chemicals made by established firms.

The Sodium Sulphite should be of good quality, and free from carbonates or caustics. Insist on a well-known label such as Mallinckrodt, Eastman or Agfa and you will experience no difficulty.

Metol is sold under many trade names such as Elon, Photol, Pictol, Meritol, etc., and these all can be used.

Chlorhydroquinone is made in this country by Zinzer and Company, and is obtainable through your local camera supply house.

Triethanolamine is made by Carbide and Carbon Company, while diethyleneglycol is made by the Dow Chemical Company.

These last two chemicals should be of a refined quality. Some firms sell the ordinary commercial grades and, while they may be used with success, the refined product is much better. In compounding the developer you may use ordinary tap water except in those communities where the water contains a high chemical content, in such cases distilled water should be used. Distilled water is best for the concentrate—in fact it should be used whenever concentrated solutions of any type are made up.

*"How do you measure minims?"*

Formula 17 makes use of three chemicals which are new to photographic workers, namely chlorhydroquinone, triethanolamine and diethyleneglycol. These are available from the above sources and also from Craig Movie Supply Co., 1053 South Olive St., Los Angeles, Calif., and from Albert Specialty Co., 231 South Green St., Chicago, Illinois.

Triethanolamine and diethyleneglycol are liquids and can be measured with an eyedropper, one drop being approximately one minim.

It is advisable to use a suitable graduate if available, calibrated in minims. A minim is 1/480 of a fluid ounce.

1 ounce = 8 drams

1 dram = 60 minims

With a graduate calibrated in cubic centimeters note that 1 minim = .06 cc.

25 minims = 1.5 cc.

30 minims = 1.8 cc.

*"Is it necessary to change exposure calculations with Formula 17?"*

You may use any reasonable exposure speed recommended for your favorite film.

Emulsion speed is the ability of a film to record in a given length of exposure to light a certain amount of shadow detail in addition to full highlight detail. Shadow detail becomes, therefore, the real criterion of emulsion speed, for almost any developer will give highlight detail with high exposure. Formula 17 gives a wealth of shadow detail and still retains detail in all but the very highest lights. This, too, is important, for shadow detail without highlight detail results in harsh, unpleasant effects.

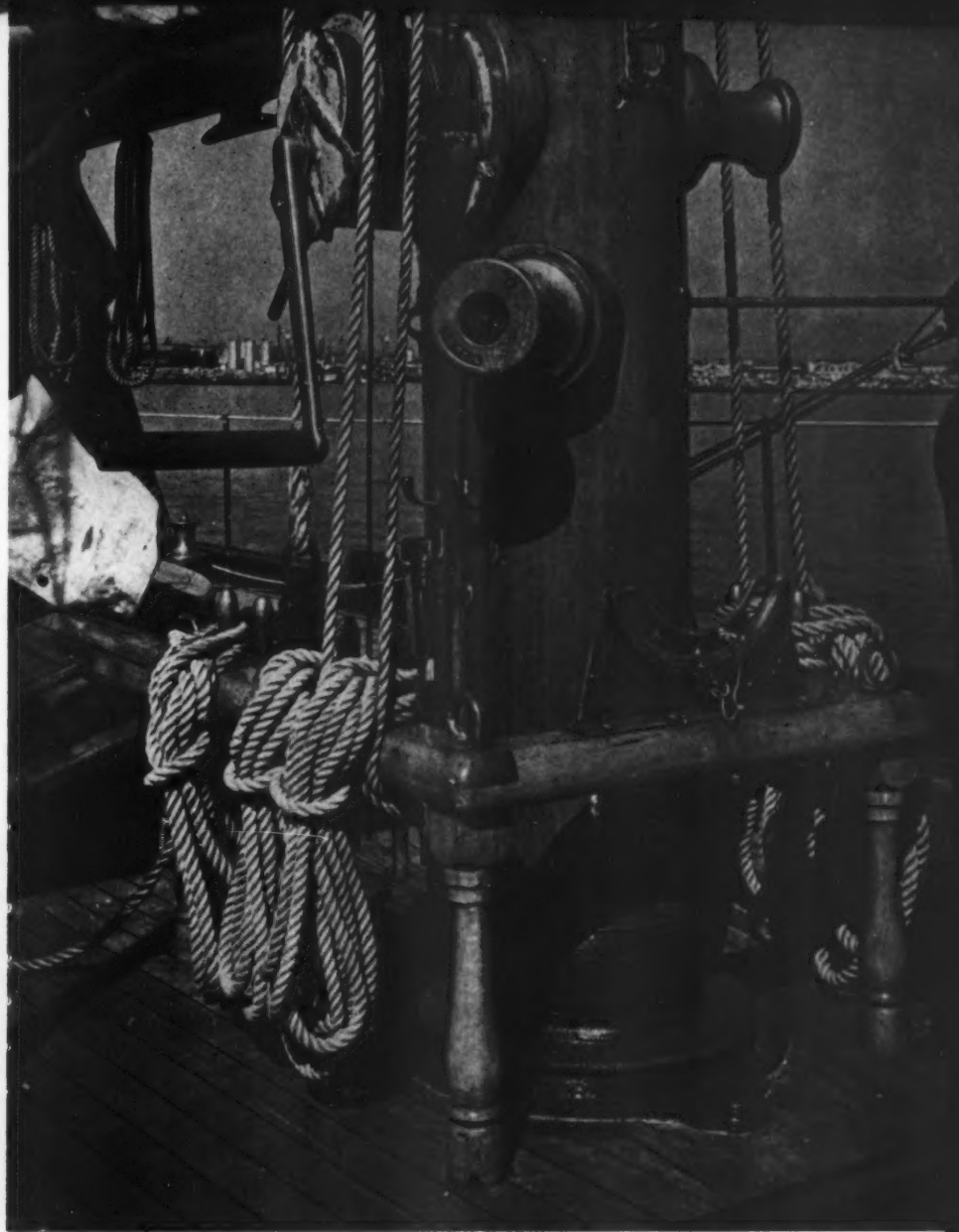
You may use the exposures recommended by the film manufacturer; by the Weston Company; by General Electric, or you may give a 50% higher rating and in some cases as much as 100% more. I have always used the speeds given in the April issue of MINICAM, and have advised users of Formula 17 to do likewise. You will thus be spared the necessity of special calculations for shadow detail. Photography will be somewhat simplified.

*"What increase in developing time is necessary with each succeeding roll of film developed?"*

Generally speaking, an increase of one minute or approximately 10 percent of the total developing time should be given for each succeeding roll of film developed in 16 ounces of solution. This increase in developing time is not so necessary with larger quantities; in fact, some workers claim that they have developed as much as 48 rolls of 2 1/4 x 3 1/4 film in one gallon of working solution without increasing the time more than a couple of minutes beyond normal. My co-worker E. C. Kalbfus told me that many times he had developed a second and even a third roll of film in 16 ounces of solution without any increase in developing time and the results were surprisingly uniform. However, I am inclined to believe that with small quantities of solution a 10 per cent increase in developing time should be given.

*"What is the life of the working solution?"*

Each 16 ounces of working developer



• Mast detail, taken aboard the Honolulu racer, "Chubasco." Correct exposure and development is a prerequisite for crisp rendition of texture and detail. Contax III camera, Orthometer, 35mm., f4.5 lens, Panatomic X film, developed in Champlin 17. By Evelyn and Harry Champlin.

will process approximately 200 square inches of film. Translated, this means 4 35mm rolls of 36 exposures each; or 4  $2\frac{1}{4} \times 3\frac{1}{4}$  roll films, or 2  $2\frac{1}{4} \times 3\frac{1}{4}$  film packs, or 8 bantam 828 rolls, or 10 4x5

cut films. Only in large amounts (a gallon or more) will working solutions keep well when stored for a long period. This is especially true and necessary in the higher temperatures of summer.

# THE TYPES OF BEAUTY

## ★ ARTICLE 2: "VIRGINIA"

PHOTOGRAPHY BY ANDRE DIENES • SCULPTURE BY FRANK NAGY

● TODAY EVERYONE LOOKS AT a picture of the Petty Girl and shouts "Ah!" Forty years earlier the Gibson Girl rustled into view and grandpa combed his mustache and put on his courting coat.

These *fashions* in beauty differ from the *types* of beauty illustrated in this series.

Fashions in beauty change in a hurry. For them five years is a lifetime. But types of beauty change so slowly that a Grecian Aphrodite, sculptured 2400 years ago, still caresses the eye.

Each type of beauty represents a kind of dream that can belong to the whole wide world; and, artists, being the best

dreamers, get the most pleasure out of beauty as they dream it up. But everyone who likes pictures has those pleasures too. These articles are to make clear what different *types* of beauty represent. Only American types are illustrated here, but America's hodge-podge bloodstream produces a beauty for every taste. These are numbered in the hundreds and, of course, shade into one another. Frank Nagy, the sculptor, chose only familiar types seen every day in real life and in pictures.

● VIRGINIA, THE "COLLEGIATE" type of American beauty is the illustrators' and photographers' choice for the

● Virginia's delicate features harmonize with a slim, girlish figure and with long-muscled arms and thighs to depict the active type of college girl.





● Advertising photographers discovered long ago, as painters had before them, that the popular mind associates various types of human activity with fairly definite "types of beauty."





model to advertise a vacation spot, bathing suits, or a slick sports outfit. Check the model types in current advertisements of these items and you will find "Virginia" everywhere. Why?

First of all, she has the lithe, long-

muscled figure so easily associated with our idea of an outdoor girl who still looks pretty after three fast sets of tennis. Highly developed arm and leg muscles, and bulging thighs may be inevitable in the ardent sports-

(Page 86, please)



• The two views (above) show the physical immaturity of the Virginia type which embodies none of the muscular development suggested to the logical mind by the phrase "athletic" beauty. She is active and alert, yet without being a tomboy.

• The torso studies (below) demonstrate the subtle modeling of the anatomical forms. Dramatically lighted figure studies of this type of figure frequently lack the richness of contour and roundness of form found in studies of the "Perdita" type.





● Like the photographer after shots of "Big Game" in its natural surroundings, these French soldiers photograph an enemy patrol (the picture in center of opposite page) creeping toward their outpost. Much of this soldier's equipment can be easily adapted for amateur telephoto work. The sturdy brace for the huge telephoto lens can be made by anyone who can saw boards and nail them together. Metal straps hold lens to brace. And the entire outfit is carried in a case which serves as a support when taking picture. Only special part that requires some skill to make at home is the over-size metal lens board with its special lens flange for adapting the huge lens to the cut film camera.

## SHOOTING ★ FRONT-LINE ACTION ★

BY A. J. EZICKSON

● IN WORLD WAR I, ARTIST AND draftsman had to go up in observation balloons to study enemy positions through field glasses and make drawings of what they saw.

In World War II, draftsmen are supplanted by photographers who have the aid of all the advantages of modern photography including the use of infra red film, color and stereoscopic photography. Pictures brought back and studied often

show many details that were either invisible or unnoticed to the observers.

Photographic observation posts on the ground now use lenses, such as the 60-in. Dallan f8 anastigmat telephoto seen on page 105. Placed on a hill, or relatively high point, they can do some of the work formerly assigned to draftsmen in observation balloons.

But the most important photographic work is done by the

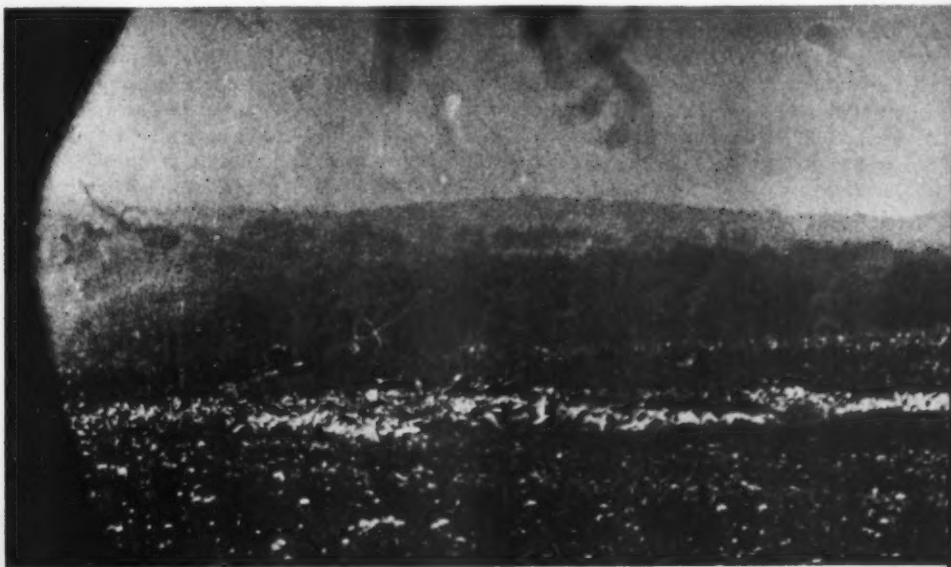
(Page 89, please)



● The stereo viewer used by this officer of the Royal Air Force is invaluable in detecting points on the aerial photographs that can be used in assembling a mosaic map of the single prints.



● Aerial shots, such as this, are taken to overlap each other more than 50%, making it possible to get a stereoscopic effect with prints from two adjacent negatives by means of a stereo viewer.



● Shot with the telephoto lens in the French observation post shown on opposite page, this photograph shows the shiny metal helmets of a thin line of German shock troops hiding in small shell holes, waiting for the signal to spring an attack on French outposts. Clear, unblurred pictures with a telephoto lens are practically impossible to get in the smoke-fogged, earth-shuddering confusion of actual battle. Their greatest value lies in recording changes of enemy positions in relatively quiet sectors.

#### WIDE WORLD PHOTOS.

● At headquarters of the R. A. F., skilled aerial mapmakers compare the long rolls of negatives, prints from them, and a recent map of enemy territory to locate the exact position of each picture. Mosaic maps of important areas are made.

● Immediately after a reconnaissance flight aerial films are developed in mobile darkrooms, like this one, located behind the lines. Prints are studied by officers at the front and then sent to R. A. F. headquarters for further study and coordination.



# ★ *One Photographer's Formula* ★ ★

## THE STORY OF BILL BRANDT

By ALEXANDER KING

● HERE'S SOME REAL INSIDE dope for a change. If you want to be a great photographer you should be about 35 years old, born in Vienna of British parents, speak French, German, Spanish, English, and Hungarian without a trace of an accent. You should be thin, blonde, six feet two inches tall and you ought to have served your apprenticeship under Man Ray. You should have two brothers, one called Ralph, the other Goo Goo. Your first camera ought to have been a Leica and you should now prefer a Rolleiflex and a couple of filters of K-variety, a sunshade and a tripod. The rest is up to you.

This happens to be the equipment of one of my favorite photographers, Bill Brandt, who has made these fabulous photographs with the help of one photoflood and an occasional non-synchronized flash. He washes his prints and his film in a bathtub, and rarely if ever talks about technique.

● When all other good photographers have neatly tucked themselves into bed, Bill Brandt, like a super-optical nightbird, flutters his mist-moistened plumage and goes abroad to see what he can see. Many, in fact, most of his pictures are taken in what is considered very bad light. In Paris and London, where even in peacetime the subways stop at 1 a. m. and where the bus service at such an hour is extremely poor, he stalks the damp streets in search of sinister and revealing photo material. Much of his work has been very deliberately staged, but under all circumstances he prefers somber, dubious illumination to blatant lighting.

He has an astonishing knack for getting along with people; this is at least half re-

sponsible for the quality of his work. Whether it be a pub in Lamb's Conduit Street or a group of devout churchgoers in Montmartre, Mr. Brandt knows exactly how to put his prospective subjects at ease. A few words from Bill as to where he wants them to stand, how he wants them to face, and all tension vanishes. A great and knowing lover of art, he realized early in his career that complexity in a picture is a sure sign of inner confusion. An austere simplicity is the keynote to all his work. He frequently finds some suitable locale and then persuades some friend to dress becomingly for that part of town where the picture is to be made. He never employs professional models because such people have invariably been spoiled by occupational maladies, such as, unnecessary eagerness, a tendency towards slick and obvious posturing.

In looking at his pictures there will be many critical spinsters who will find that in some instances they are lacking in certain technical perfection. Let me hasten to point out to these pictorial statisticians and photo engineers that a passionate intensity, a burning vision, and the clarity of impeccable good taste are to be infinitely preferred to the achievement of just a clear focus. A piano student has good reason to concern himself with the niceties of pedaling, tempo, touch, and so on—a master has the divine privilege to take liberties with his material by the immemorial authority of his genius. You can learn two things from the pictures of Bill Brandt: Vision and Composition. Let us take for granted that you know all about the mechanics of photography or are following the other articles in this issue which are designed to help you improve your technique.



+ + + + +

# "THE SUPER-OPTICAL NIGHT BIRD"

• A "formal" pose photographed in informal surroundings.



● If you will take the photograph of the white bird, for instance, standing still in the evening coolness against the solemn background of a magical park, you can

see with how much cunning the white of the sky, a little left of center, complements the white of the plumage below. Best of all, make this test for yourself : take a sheet





of paper and cover the right side of that print until the bird is directly in the middle of the picture and you can instantly

demonstrate what makes Mr. Brandt one of the greatest photographers in the world. The same is true about the young

couple embracing in the girl's bedroom. Everything in that photograph is exactly and eternally right. We know that it is the girl's bedroom because of the sprig of mistletoe, the flowers, and the two cut-glass containers. The romantic taunt, the simple, elemental quality of love has been more wonderfully captured in this print than in ten thousand feet of Hollywood oomph.

Perhaps at this point I ought to disclose that Bill Brandt was originally a painter. This may account for the fact that so large an aesthetic impulse comes to his work because his "dodging" in the darkroom represents a large part in the success of his photographs. He treats the enlarger not as a casual mechanical implement for a pre-ordained end, but as a source of light whose manipulated intensity creates depth, volume, and subtle gradation of shadow. In this he exercises himself like a man familiar with art techniques, and his early training is of incalculable value for the

poise and authority required to take such liberties with a not overly fluid or predictable medium.

- It might be a good idea for photo technicians, wearied by the banality of their prints, to experiment with dodging and flashing to darken or lighten parts of a print. They might as a mere guide, in the beginning at least, copy certain light arrangements from the great masters of painting such as Rembrandt, Goya, El Greco, and see how through deliberate emphases their photographs might gain intangible appeal.

I know perfectly well that at the present writing a million misguided cameramen are looking for suitable photo subjects, lugging around endless equipment, excepting the essential one: Imagination.

A world of dramatic subjects is waiting to be exploited by you . . . if you learn to see the world as the romantic, mysterious and stirring place that it really is.

NEXT MONTH: "Key Picture Contest" winners will be shown with Alexander King discussing the entries from the Picture Editor's point of view.—Ed.

- There is an eerie quality in Brandt's work that gives it a "Man from Mars" effect as if Brandt sees things not vouchsafed to everyone. The dress of the children here, the wallpaper and the lace curtains—all conspire to carry out the "old-world" impression. Besides, who else would think of snapping an ordinary rear view of children leaning out of a window!



- (Right.) This is a more usual type of subject, but the "Brandt" effect remains. Placing the trapeze artists in the upper right hand corner surrounded by black and empty space conveys the impression of great height and the danger and loneliness of their work.







# ★ MINICAM'S

CONDUCTED AND ILLUSTRATED BY VICTOR H. WASSON

● IT'S EASY TO MAKE ERRORS IN picture-taking. It's not so easy to recognize faults when you see them, whether in your own pictures or someone else's.

The first requisite for the successful photographer is a critical eye in viewing pictures. This department is aimed to help develop that all-important critical vision.

The professional artist, with long practice, develops a faculty for judging pictures. He can "feel" whether his picture is right or wrong. The photographer can

develop this faculty, each time he views a picture by visualizing the work of the photographer and by recreating in his mind how the picture was made, the camera angle, posing, direction of lighting, etc.

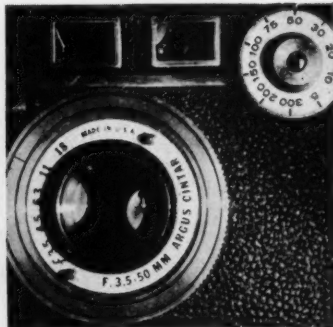
A number of very elementary problems are shown on these pages. Study the questions and note your conclusions before consulting the list of answers. In this way you not only can test your knowledge, but also be better prepared to recognize faults in prints.

1. One of these was printed through the back of the negative. Which one and how can you tell?

2. If this ship picture is a straight print, what caused the dark corners? A. Faulty shutter. B. Wrong diaphragm stop. C. Faulty lens shade.



3. Here are three exposure settings. Two of them will give exactly the same exposure. Which is the odd one?



# KAMERA KWIZ

## ANSWERS

Cover these answers with a piece of paper while studying the illustrated questions on these pages. Score: 4 correct is fair, 5 is good, 6 is excellent.

1. "A" was printed with the negative reversed or "flopped over". A man's pocket handkerchief usually is on the left and the vest buttons from left to right as in "B".

2. "C". Too long or too small a lens shade will prevent exposure of the corners of the negative, which will print in black.

3. Equal exposure will result at either  $f/4.5$ ,  $1/300$ ; or  $f/11$ ,  $1/50$ ;  $f/6.3$  at  $1/30$  is the odd one.

4. There is subject motion in "A" since the girl is sharp while the man is blurred. He moved. Either camera or enlarger vibration can cause the result seen in "B".

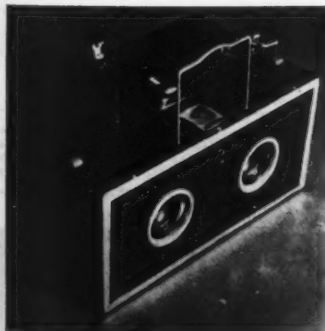
5. The girl's lips are the clue. While they are light in "A", they are dark in "B". All other factors being the same, a filter would cause this. "A" was shot through a red filter which admitted the red from her lips to darken the negative and print light. No filter was used for "B".

6. This is a stereo camera, the lenses being spaced about as far apart as the human eyes to produce two pictures of each scene to be looked at through a stereo viewer which gives a three dimensional effect.

7. The light rendition of foliage is characteristic of infra red film.

8. Improper advancement of the film superimposes one image upon the other producing a partial double exposure.

6. Twin lens cameras are becoming increasingly popular. This one is a:  
a. Reflex. b. Stereo. c. Panorama.  
d. One-shot color camera.



4. There is motion in both of these. Which one shows subject movement? What two causes could bring about the other result?



5. These two copies of a "Minicam" color-cover were made within a few minutes with identical lighting on a single roll of film, and received identical developing and printing on the same grade of paper. How do they differ and why?



8. What was wrong? a. Films touched in developing. b. Improper advancement of film. c. negative buckled.

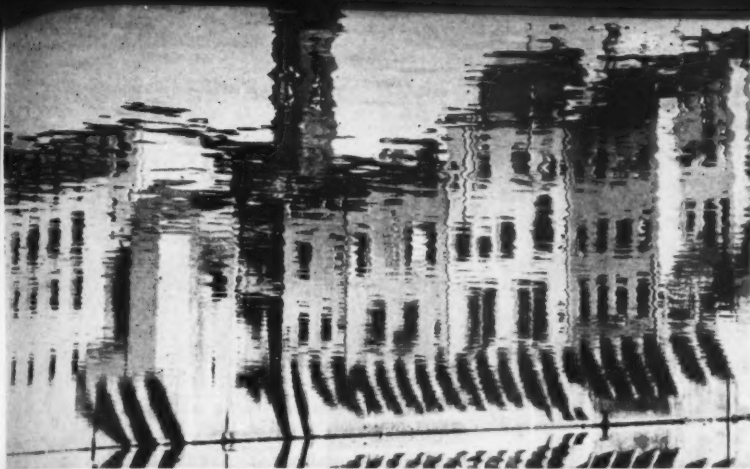
7. What kind of film probably was used to take this picture?

# D D I T I E S • • B E F O R E

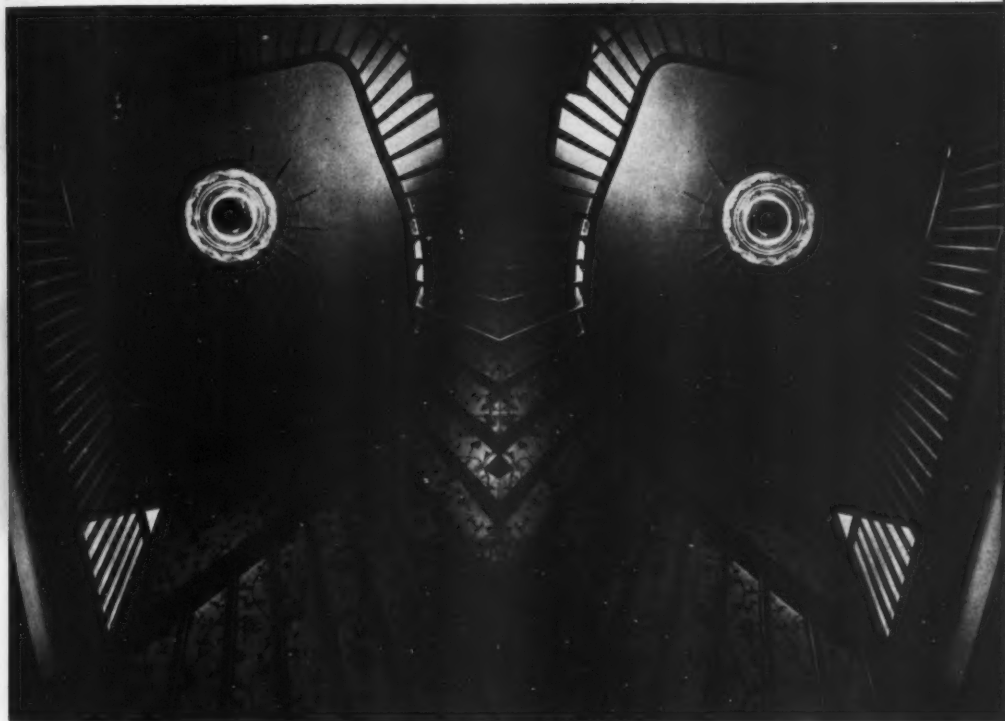


• "DIZZY" represents in a photograph the sensation felt after looking up at tall buildings. The buildings appear to have lost their firm foundations and lower stories and are "suspended" above a mist-like base. The distortion was achieved by elongating the negative image on a tilted enlarging easel. A book was placed under one edge of the easel. National Graflex camera, K-1 filter, Verichrome film, f16, 1/50 second. Developed in D-76, Haloid Bromide paper, D-72 developer.  
By A. W. Presse.

ODDITIES BEFORE THE CAMERA pays \$5 and up for prints that illustrate slightly unusual, tricky or novel pictorial effects. Submit prints with brief description of each to "Oddities Dept., Minicam Magazine, 22 E. 12th St., Cincinnati, O." In the picture it should not be obvious or apparent, until reading the description, just how the effect was obtained.



● BY PHOTOGRAPHING only the reflections of buildings in gently moving water, Riccardo Moncalvo, of Torino, Italy, has achieved a quality of thickly applied paint, without in any way departing from straight photographic technique to do it. Leica camera, 90mm. Elmar lens, Agfa Isopan film, f6.3, 1/100 second.



● "THE EYES OF MARS." Is this a lacy mask through which peer a pair of sinister eyes? What causes the eerie, stereoscopic effect? The photographer has utilized one of his craft's previously untold possibilities by the simple expedient of mounting two prints together. There is imagination here, and simplicity too. The subject is no more than a worm's eye view of a circular staircase. Two prints were made from the same negative, one print in reverse, and mounted together. By Ben Schnall.

# THE CAMERA

# HOW TO TAKE GOOD PICTURES

ONE OF A SERIES ON FUNDAMENTALS FOR BEGINNERS

BY CLAYTON WOODMAN • WITH AUTHOR'S ILLUSTRATIONS

● EVERY CONVENTIONAL CAMERA has a view finder of some sort. It may consist of an oblong of wire and an eyepiece; it may be a simple mirror contraption; it may be a reflex proposition, an optical tunnel or a square of ground glass in the camera's back. Whatever it is, it's a valuable gadget, not something tacked on like the whipsocket on a 1904 automobile. Give it a moment's consideration.

Theoretically, at least, a view finder shows you what your camera "sees" at the moment you poke the shutter release. The usual procedure, therefore, is to peer intently into the view finder, and fix your major subject square dab in the middle of the view. That way you take no chances. With the 5th Regiment Armory or Our Nell planted firmly in the center of the view, it or she hasn't a chance to escape. Blang, and the picture is made.

Afterwards, when looking at the finished opus, you may find yourself somewhat less than enthusiastic about it. Cheer up. Such dissatisfaction comes under the head of Divine Discontent, and can lead onward and upward to Better Things.

● Centering, in short, is safe, but—is it Art?

Having mentioned that holy word, Art, we might just as well put on smoked glasses and take a closer look. Most of us have an inferiority complex when Art or even art, uncapitalized, is mentioned. That's because artists, for centuries, have formed a kind of tacit monopoly. They've assumed a holier-than-thou attitude toward the rest of the world; art, they imply, is their property. Don't blame the artists; it's just human nature. Any specialist, be he a brick mason, a dentist, or

a safe-cracker, looks on everyone who isn't respectively a mason, a dentist, or a safe-cracker with some disdain.

Art is all relative. One man's art may be another man's Picasso. The trouble with professional art is that it attempts to be dogmatic. Unless a picture conforms to an arbitrary set of currently accepted rules and standards, it gets the bum's rush. That, obviously, is nonsense. For, if the picture succeeds in doing or "saying" what its maker intended it to say, it is valid art. You and I may dislike it, but we've no right to say it isn't art. Art is intensely personal; broadly speaking, we've no more right to criticize a man's artistic efforts than we have to criticize his love letters.

● Out of the art experience of the so-called human race, however, a few helpful rules of thumb have emerged. And these can be used as helps—not worshipped as fool-proof rules—in making any picture do its job better.

To get back, now, to our camera view finder and Nell, or even the 5th Regiment Armory, we can consider those facts in the light of what we want our pictures of these enticing subjects to "say."

Take Nell. If we wish to say, in a picture, that we think Nell is a nice gal, prim, proper, set in her ways, and not very exciting, we plunk her squarely in the middle of the scene, as we view it in the finder and tell her to "hold it." We do this because it's one of the "facts" of artistic expression that a geometrically centered object is or tends to be, static, motionless, and no special treat to the eye.

If, on the other hand, we wish our picture to proclaim to the world that Nell is a spirited filly, we make very sure that she's not accurately centered in our pic-





● Sometimes the most trifling change will give a picture a touch of umph. In the above, Our Nell, who is undoubtedly a comely lass, is so squarely centered, that the picture lacks life.



● Here, by a simple twist of the torso and avoidance of the dead center a somewhat more alive picture is obtained, under the same conditions of subject and surroundings.



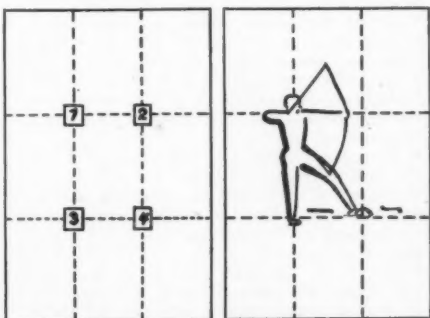
● There's something, down there just beyond the southwest corner of the picture, something pretty interesting, probably. But we can't see it, and because everything in the picture shoves our attention down beyond the corner, we pay no attention to Nell.



● This time we really don't care so much about the crab that Nell's trying to poke out from its cubby; we are much more, and properly, interested in the girl herself. And all because she's placed better, and the "fishing" pole doesn't try to pull her out of the picture.



● Well, well, what won't they think of next! Clothes-line coiffures. This is just a mild case of background trouble, all of which is easily avoided by a bit of care when the picture is composed.



● This business of "thirds," remember, isn't a "law," it's just a help. Divide your picture space into thirds, horizontally and vertically. Where the lines cross, at 1, 2, 3, and 4, are points at which your primary points of interest can effectively fall. Be sure that one of the four points dominates.

ture. Just where, if not in the center, do we put her?

● Old man Experience indicates that there are live spots as well as a dead center in any picture area. For example, if you divide a picture area into thirds, horizontally and vertically, the four intersections of the lines give you four good, live points. Any one of the four can serve as a starting place for our picture of little Nell, a comely lass. So we maneuver so that her pretty face appears in our viewer approximately on one of the two upper points. So far so good.

We could arrange things so that one of Nell's cute feet is on the lower left point, the other on the lower right, while her hands hold something at approximately the other upper point. But that's being slavish about it. So we concentrate on one of the points and let the rest tag along. Chances are, our picture will have a lively quality, and will not label Nell as a stick-in-the-gumbo.

Believe it or not, the formidable business of Pictorial Composition is nothing in the world but an elaboration of such

simple tricks as the "thirds" stunt. I can hear loud screams from the artistic set that I am dealing all too lightly with a practically sacred subject. Sure I am; there are dozens of books on the subject (most of them raising eyebrows at what's said in all the others), but this article doesn't pretend to be a circulating library. Read all the books; there's good in all of them, but be herewith warned. Over-carefulness in composition can very easily destroy the spontaneous quality of your work. "Perfect" composition does not guarantee a perfect picture; it's merely a help.

● Many of the so-called rules of composition are merely ordinary, everyday commonsense all dolled up in velvet smocks and a dreamy expression. For example, it's simple sense to arrange your picture so that it emphasizes something within the picture area. Suppose you have a man standing on a parapet, with binoculars held to his eyes, facing right. If he is shown on the right of the picture, the whole shebang will be out of balance, with all the attention directed to something we cannot see. So you swing around a bit until your binocular gent occupies the left side of your picture; *his* attention may still be directed outside the picture, but our attention settles easily on the man himself.

Another rule of thumb, easy to remember and very helpful, concerns the horizon line. If you sight a subject so that the horizon line cuts the picture area more or less exactly in half, you saddle your picture with a handicap. It's the old business of "centering" again; there's nothing really wrong about it, for there's no such thing, in pictures, as strict right and wrong; it's merely that our old friend Experience has discovered more and less interesting or effective uses of a picture area.

● Most of us, sooner or later, try a "reflections" picture. Suppose we sight a lovely, tree-lined lake shore, with each tree perfectly reflected in the smooth, clear water. We may be tempted to aim

#### POINTS TO REMEMBER

- "Art" is pretty much a personal matter; if it tells the story the artist wants to tell, the chances are it's valid.
- The exact center of a picture tends to be a "dead center," a poor place for an interesting subject.
- Divide the picture space into thirds, horizontally and vertically, to establish four good points, any one of which, properly used, makes a good place for your major point of interest.
- Arrange the subjects in a picture area so that the emphasis falls on them, not on something out of sight.
- Keep the horizon line well above or below the midline of your picture.
- Beware of too perfect reflection scenes. Break up the reflections so that your public won't spend its time puzzling over which is real and which mirrored.
- Beware of "parallax," especially in close-ups. Your view finder (usually) isn't accurate for real close-ups, because, after all, it's above or to the side of the camera lens. Compensate for it.
- Watch your backgrounds. The camera frequently records background objects entirely out of harmony with the intended subject.
- Don't try to be arty. Good composition is mostly common sense.



• The old masters used to love painting and drawing pictures of "Mother and Child." The magic of a camera makes everyone an old master in this respect. What is more, the mother, child, sister or brother shown may be our own. Note the use of a low camera angle and the excellent expression captured. The photographer shot while lying flat on the ground. DATA: Bright sunlight, light yellow filter, Leica Camera, 90mm. Elmar lens, 1/100 second, f/12.5, Agfa Superpan Supreme Film, developed in DK20, print on Agfa Brovira. By Ellen Auerbach.

the camera so that the shore cuts the picture in half; that way, we reason, the reflections get an even break. They do, but the finished picture doesn't.

The picture emerges as a trick shot; the beholder spends his time trying to dope out which are the real trees and which the reflections. If that's what you want to happen, O. K. But if you want to give us a notion of beautiful reflections, you'll do something to show us, right off, which is which. A lily pad, a wavelet, a floating stick—something of that sort can be introduced to break up the slickness of the reflections, so that we are at once at ease and can spend our time enjoying the picture instead of trying to puzzle it out. A stunt, used by many a vet, is to break up reflections by tossing a stone into the water. As the ripples spread, the picture is shot.

Despite what's been said here about the dangers of strict geometric centering in a picture, most good pictures do possess a quality called balance. If your major point of interest is in the upper left of the space, the secondary interest is preferably found in the lower right. Similarly, your major masses of dark and light should be juggled to achieve a kind of balance. Remember that a dark area appears darker if there's a light area next to it; contrariwise, a highlight is brighter if surrounded by darks.

To me, the most important of all the compositional "rules" is—keep it simple. Just because the patient eye of your camera can record a million or two points of light in a split second, don't let this ability give you a million spot complex. Reduce the confusion as much as you can. You'll find your picture tells its story far more effectively and with a lot more neatness if you eliminate the non-essentials. You can usually do this by changing your camera view point.

Let me repeat, composition is nothing in itself. Its only purpose is to help you make your pictures more attractive, more readily understood.

- Now for some more suggestions about

the actual, more or less mechanical use of a view finder.

Unless yours is a view camera, a Graflex, or other one-lens reflex outfit in which you view directly through the camera's taking lens, the view finder is located an inch or so above or to the side of the camera lens. And that's entirely satisfactory for all shots of subjects a dozen feet or farther away. Closer than that, be a bit careful, for the scene your viewer shows you will err slightly, including objects either above or to the side of the scene embraced by the lens, according to the placement of the finder. This situation is called "parallax." Some expensive cameras are designed for automatic parallax correction; most of us get along very nicely, counteracting this discrepancy by a simple shift in camera stance. Unless you learn to do this habitually, you may wind up with some close-ups in which heads or feet or persons at the side of the picture suffer ruthless chopping.

- Allow more than a casual glimpse at what your finder shows you. Frequently—unless you've really used the finder—you'll discover a good many things in your finished picture that you didn't notice when you made the exposure. Nell may be there, all very beautiful, but a background lamp post or telephone pole may appear to be sprouting from her head or shoulder. Or maybe there'll be something distinctly unsightly in the background. (I've seen scores of shots in which a Chick Sale telephone booth appeared, big as life and exactly as handsome). Such inclusions, entirely unintended, add little to the quality of any picture.

So give a real look at what the view finder offers. Nine times out of ten, you will automatically shift your viewpoint so that the scene is resolved into a pictorially successful shot. And you'll do it without asking yourself, "Am I being artistic? Is the composition dynamically balanced?"

Have the sense to shoot things as they appeal to you. In no other way will you get such real fun out of photography.



• Shooting our Nell in mid-air is really not so difficult providing the camera has a shutter speed or  $1/200$  of a second or faster. Snapping the shutter just a fraction of an instant BEFORE the swing reached its maximum height, usually will succeed in catching it at its PEAK, where the motion is slowest. Otherwise, or if a slower shutter speed is used, the picture of the swing and its moving occupant will be blurred. Taken with a Rolleiflex camera,  $2\frac{1}{4} \times 2\frac{1}{4}$ ",  $1/250$  of a second,  $f11$ . Superpan Press Film developed in Agfa 17. Print on Velour Black developed in D72. By Carswell-Pix.



## HOT WEATHER HINTS ON DEVELOPING

● IF THE GELATIN COATING ON PHOTO-graphic film were not affected by temperature, there would not be much more trouble encountered in hot-weather development than in any other kind. Heat and humidity affect chemical action and paper emulsions too, but the main source of concern is the sensitive negative emulsion. To keep this emulsion from frilling, reticulating or running off altogether is the nucleus of the hot-weather development problem. Here are a few hints that might be helpful.

Never develop a miniature film in warm solution if you possibly can help it. Large grain will result if you do. In extremely hot weather or in the tropics, start development at several degrees below 65° F. By the time development is complete, the solution temperature may have gone up 10°.

When processing film in solutions that cannot be cooled by ice or other means, hardening the emulsion is necessary. There are several ways of doing it:

### (1) USE OF FORMALIN

Mix water, 10 parts, and 40% formaldehyde solution, 1 part. Harden negatives in this for 5 to 8 minutes. Wash 5 minutes in running water, and then develop and fix as usual.

### (2) HARDENER IN DEVELOPER

You can buy chemicals that, when added to a developer, do not affect its action but act on the film emulsion to harden it. (See Data Sheets, June MINICAM, p. 38.)

### (3) SPECIAL HIGH-TEMPERATURE DEVELOPERS, HARDENERS AND FIXING BATHS.

#### Kodalk Tropical Developer (Eastman DK-15)

Water (125 degrees F.)	24 oz.
Elon	82 grains
Sodium sulphite, desiccated	3 oz.
Kodalk	3/4 oz.
Potassium bromide	27 grains
Sodium SULPHATE, desiccated	1 1/2 oz.
Cold water to make	32 oz.

(If crystalline sodium SULPHATE is used, increase the quantity to 3 1/2 oz.)

Develop about 5 minutes at 80° F.; 2 1/2 minutes at 90° F. Rinse the film 1 second if the temperature is not above 85° F., and place it in the SB-4 hardener given below, or in a similar hardening bath. Then fix. If temperature is above 85° F., omit the rinse, and transfer negative directly from developer to hardener.

#### Chrome-Alum Developer

This can be used at temperatures to 90° F., as it hardens the gelatine emulsion as it is being developed.

Water	8 oz.
Sodium sulphite	150 grains
Chrome alum	100 grains
Amidol	20 grains

To mix: Dissolve the sodium sulphite in about two-thirds of the water, and the chrome alum in the rest. Add the chrome alum solution to the sulphite, then dissolve the amidol in the sulphite-chrome alum solution.

Note: This is essentially a tray developer and fast films of the Agfa Triple-S Pan type develop sufficient contrast in 1 1/2 to 3 minutes at 85° F.

(Commercially prepared developers for use at high temperatures include Lowe's Thermo Fine and Defender Panthermic 777.)

#### Chrome-Alum Tropical Hardener (Eastman SB-4)

Water	16 oz.
Potassium chrome alum	1/2 oz.
Sodium SULPHATE, desiccated	1 oz.

(If crystalline sodium SULPHATE is used, increase the quantity to 2 oz.)

Agitate film for first half-minute in bath. Harden 3 minutes, then fix as usual.

#### Formalin Fixing Bath for 85° to 95° F.

Hypo	10 oz.
Sodium sulphite	1 3/4 oz.
Formalin	4 oz.
Water to make	32 oz.

Formalin (40% formaldehyde solution) gives off fumes that are irritating to nose and eyes. Keep solutions containing it covered as much as possible.

### General Precautions

In hot weather, handle films by means of clips or hangers, rather than the fingers.

Dry film in as cool a place as possible, and before a fan when available.

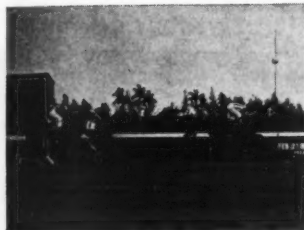
Negatives hardened with formalin may, after a period of years, become damaged by cracking or disintegrating of the emulsion. However, a duplicate negative usually can be made in cooler weather before any damage becomes evident, if the picture is worth the extra trouble.

For hot weather hardening and fixing solutions see Data Sheets in June MINICAM.



# PHOTO DATA SHEETS

## SHUTTER SPEEDS FOR MOVING OBJECTS



● Subject moving at right angle to camera



● Subject moving toward camera



● Subject moving obliquely to camera

● **WHEN PHOTOGRAPHING MOVING OBJECTS**, the following tabulation will provide a guide for all usual situations. It is assumed that light conditions are such that a stop permitting the listed speeds can be used. When indicated distances are *doubled*, shutter speeds can be *halved*. When distances are halved, shutter speeds must be doubled.

Example: What shutter speed is required to stop motion in a picture like the one at the left, showing race horses running at a right angle to camera about 50 feet away?

For a lens of 2-inch (50mm.) focal length, the

table lists a shutter speed of 1/180 second. Use a shutter speed of 1/150 or 1/200 if shutter does not have 1/180 second calibration.

For use with lenses other than the sizes listed on the table below, employ the 10-inch table and simply multiply the numerator of the recommended shutter speed by the fraction consisting of the focal length of lens over ten. With a 7-inch lens, this fraction would be 7/10ths. Thus, if under certain conditions, a shutter speed of 1/600 is recommended for use with a 10-inch lens, a 7-inch lens would require 7/10 of 600 or 1/420 of a second exposure.

### TABLE OF SHUTTER SPEEDS FOR MOVING OBJECTS

Subject	Distance (camera to subject)	Direction of motion	Shutter speeds in fractions of a second for lenses of following focal lengths:					
			2 in.	3 in.	4 in.	5 in.	6 in.	10 in.
Pedestrian .....	25 ft.	Toward or away from camera...	1/20	1/25	1/30	1/40	1/50	1/80
		Obliquely .....	1/35	1/50	1/65	1/80	1/100	1/160
		Right angles*	1/50	1/75	1/100	1/120	1/150	1/240
Trotting horses .....	25 ft.	Toward camera*	1/65	1/100	1/125	1/160	1/200	1/320
		Obliquely .....	1/120	1/180	1/240	1/300	1/360	1/600
		Right angles .....	1/200	1/300	1/400	1/500	1/600	1/1000
Ordinary bicycles .....	25 ft.	Toward camera .....	1/100	1/150	1/200	1/240	1/300	1/480
		Obliquely .....	1/200	1/300	1/400	1/500	1/600	1/1000
		Right angles .....	1/300	1/425	1/560	1/700	1/850	1/1400
Foot races, similar sports, etc. ....	25 ft.	Toward camera .....	1/100	1/150	1/200	1/240	1/300	1/480
		Obliquely .....	1/200	1/300	1/400	1/500	1/600	1/1000
		Right angles .....	1/300	1/425	1/560	1/700	1/850	1/1400
High divers .....	50 ft.	Toward camera .....	1/120	1/180	1/240	1/300	1/360	1/600
		Obliquely .....	1/160	1/240	1/320	1/400	1/480	1/800
		Right angles .....	1/160	1/240	1/320	1/400	1/480	1/800
Galloping horses .....	50 ft.	Toward camera .....	1/60	1/90	1/120	1/150	1/180	1/300
		Obliquely .....	1/120	1/180	1/240	1/300	1/360	1/600
		Right angles .....	1/180	1/270	1/360	1/450	1/550	1/900
Racing bicycles .....	50 ft.	Toward camera .....	1/60	1/90	1/120	1/150	1/180	1/300
		Obliquely .....	1/120	1/180	1/240	1/300	1/360	1/600
		Right angles .....	1/180	1/270	1/360	1/450	1/550	1/900
Automobiles, trains, motorcycles, etc., 40 to 60 m. p. h. ....	100 ft.	Toward camera .....	1/60	1/90	1/120	1/150	1/180	1/300
		Obliquely .....	1/120	1/180	1/240	1/300	1/360	1/600
		Right angles .....	1/180	1/270	1/360	1/450	1/550	1/900
Boats at 10 knots .....	100 ft.	Toward camera .....	1/15	1/20	1/25	1/30	1/40	1/60
		Obliquely .....	1/25	1/35	1/50	1/60	1/75	1/120
		Right angles .....	1/35	1/50	1/75	1/90	1/100	1/180
Boats at 20 knots .....	100 ft.	Toward camera .....	1/25	1/35	1/50	1/60	1/75	1/120
		Obliquely .....	1/50	1/75	1/100	1/120	1/150	1/240
		Right angles .....	1/75	1/100	1/150	1/180	1/200	1/360

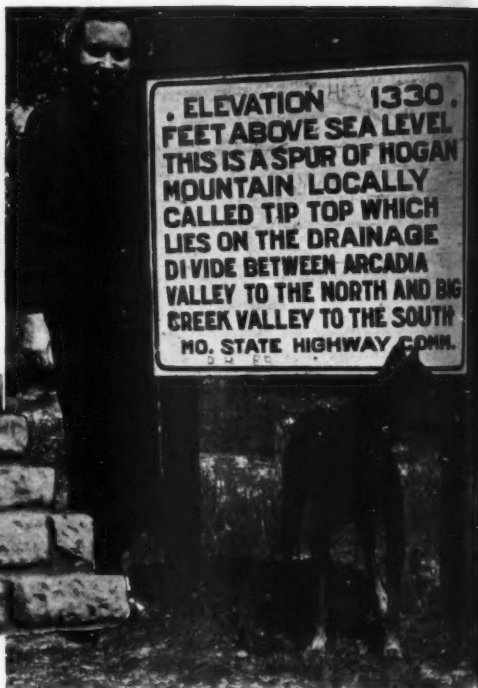
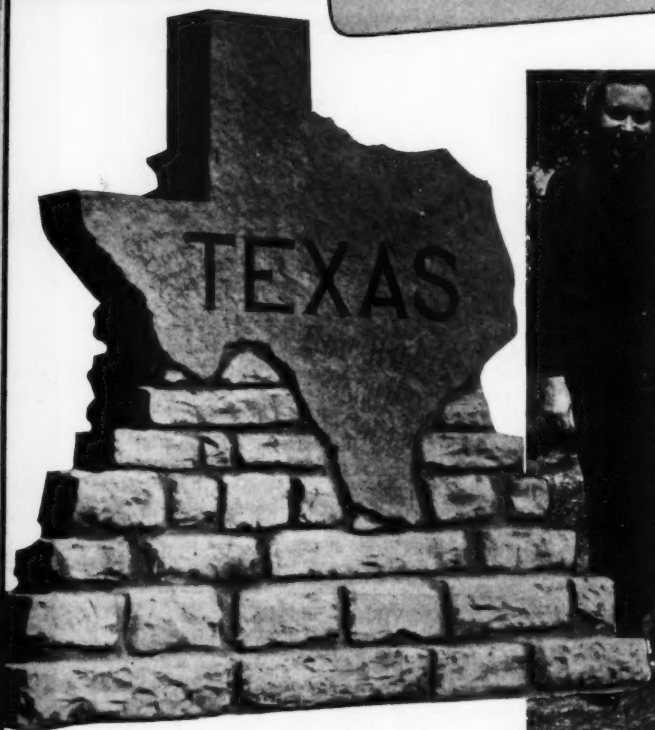
\* "Toward camera" means an object moving either toward or away from camera.

Obliquely refers to motion at an angle to camera, moving either toward or away from it.

Right-angle motion is parallel to film and at right angles to lens axis.

Shutter speeds are in fractions of a second.

**DON'T FORGET  
THE LABEL**



• A billboard, signpost, highway marker, street sign—in fact any guide with a written legend—will convey the atmosphere of a group of pictures.

#### • THE MOTION PICTURES DO IT.

For example, when a close-up of a street sign reading, "BROADWAY AND 42ND" is flashed on the screen followed by typical Times Square scenes of revelry, you know you are viewing whoopee being made, not any place in the world, but, specifically, on "BROADWAY AND 42ND."

You can do it every time you make a group of pictures, whether the subject is a vacation tour or merely a Sunday afternoon in the slums, parks or other characteristic areas of your own city.

A picture series with a descriptive  
(Page 90, please)

SUNLIGHT OR MAZDA

DeJUR "Critic"  
MODEL 40  
EXPOSURE METER  
... with the Modern "Louvre"

**\$18.75** (Custom Designed Case, \$1.75)

Out of a maze of claims and counterclaims . . . out of the reckless bandying about of the words "precision" and "versatility" . . . the new DeJur "Critic" emerges as the choice of thousands of intelligent camera owners. Judged by every modern standard, the "Critic" exemplifies the peak of perfection in the photo-electric exposure meter field.

Your dealer will show you a meter which covers every range of sensitivity . . . a meter designed by men who breathe and live in the precision instrument field . . . a meter built by the painstaking and honest hands of New England craftsmen.

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The "Critic", an instrument of superb merit, is made of American materials in the finest tradition of American labor. It may be used with every camera, under any lighting condition, with perfect results by the beginner, the advanced amateur or the professional.

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### This is the "Louvre"

It sees eye-to-eye with your camera, shuts out stray light, indoors or out, sunlight or mazda, always giving the same angle of acceptance. For black-and-white or color, still or moving pictures.

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# BEING CRITICAL

**YOUR SNAPSHOTS AND HOW TO BETTER THEM**

● "SWIMMER" SHOWS SOME OF THE things that go wrong when taking pictures of action in the water, as a lot of photographers will do this summer. Focusing on a moving object in the water is difficult and the lack of sharpness in this picture made at f16 indicates that the distance was incorrectly judged, or the focusing adjustment was made hurriedly and incorrectly.

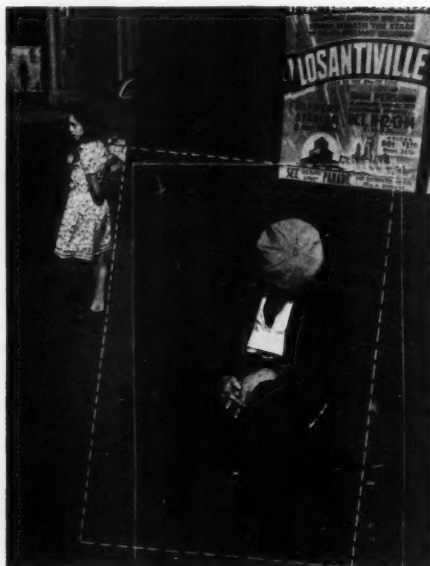
Stopping swimming action requires a faster exposure than 1/25 second. Use a shutter speed of 1/200 second and the aperture that will give correct exposure with this shutter speed. If 1/25 second at f16 gave a perfect negative, 1/200 at f6.3 would have been the correct combination.

To solve the problem of focus, determine the point where the swimmer is to appear in the picture, measure or gauge this distance carefully and set the focusing adjustment accordingly. When the swimmer comes into the viewfinder at that spot snap the shutter. Many fine action shots have been made with this technique.



"Swimmer". Dollina "O" camera, Eastman Super XX film, medium orange filter, f16, 1/25 second.

The use of the orange filter to darken the water and separate the light-colored swimming suit and bathing cap from their surroundings was a good idea. If the swimmer had been closer to the light-colored pool edge, reaching for it, or getting ready to climb out, the composition would have been much better. As it stands, the picture when trimmed along the dotted line and with about half an inch additional room below the hand will be more pleasing.



"Unemployed". 2 1/4 x 2 1/4 Solar camera, Agfa Suprapan Supreme film, f11, 1/100 second.

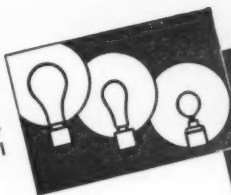
● THE PICTURE "UNEMPLOYED" illustrates the point that many pictures may be trimmed in a number of ways, each of them making a significant composition, but with different emphasis producing different effects in each instance. The choice of emphasis and resulting effect often marks the difference between a successful print and one that is just "another picture."

The whole picture, as reproduced here, needs the light spots in the upper left, the girl's figure and the shop window to balance the large poster in the upper right. Because the girl is looking out of the picture, and the title directs the eye to the figure of the drowsy man, the intended effect is improved by trimming the picture to eliminate the girl and most of the poster from the composition.

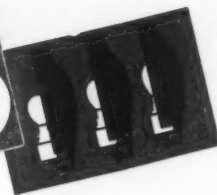
The unbroken white lines mark a composition in which the poster's line, "See Gigantic Street Parade," is left as an ironic note of contrast to the sleeping figure.

The broken lines indicate another composition in which the man's (Page 87, please)

Socket slides  
up-and-down  
... on a slanting  
track, to center  
and focus all  
standard bulbs.

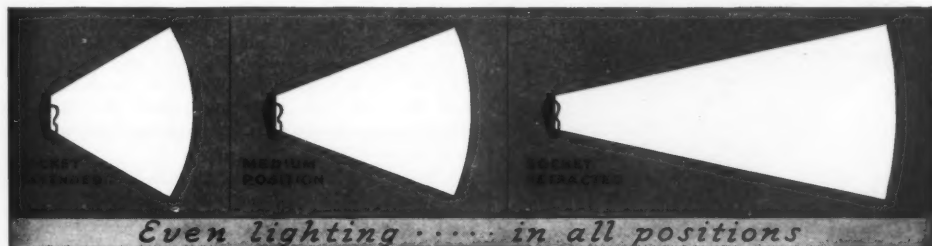


Socket slides  
in-and-out  
... to control the  
"light-beam" to  
match varying  
conditions.



# Select your own flash "Beam"<sup>99</sup> for distant shots or close-ups

"Double-acting" socket in new Goodspeed reflector  
"auto-focuses" all standard bulbs — instantly



SOMETIMES you want to light up heavy foreground shadows, against a background of sunlight. Or concentrate on a "close-up-group" at night.

Other times, you want to focus on action at the far side of a room or hall.

Proper all-purpose lighting to meet varying flash conditions can be obtained with the new "auto-focusing" Goodspeed. Simply slide the socket in-and-out . . . to select the type of "beam" that fits each subject. Whichever type you choose, Goodspeed's carefully calculated "arc of reflection" sends out a soft, evenly-diffused light.

"Selecting-your-beam" is just as simple as Goodspeed's tiny metal synchronizer—smaller than a cigarette—that adjusts to your camera in a few minutes, and cannot possibly harm your shutter.

And it's just as convenient as Goodspeed's idea of hiding 9 volts of batteries inside the reflector itself, with no separate battery case.

Your camera dealer will gladly demonstrate the new "auto-focus" Goodspeed—on your own camera. \$15.00 complete. For free booklet, mention camera you use, on a postcard to Goodspeed, Inc., Dept. G-7, 220 Fifth Ave., New York.

*Goodspeed for flash*



# GADGET-HINTS AND SHORT CUTS

## EMERGENCY TRAYS

By W. E. Burton—Author's Illustrations

• YOU CAN MAKE A TRAY IN A FEW minutes from plywood and a piece of a thin sheet of synthetic rubber such as pliofilm.

Make a box of the size and shape desired, from the plywood. The joints can be nailed, or reinforced with casein glue. Cut the pliofilm so it can be pressed down into the box to form a continuous lining, and the edges folded over the box edges and brought down the sides.

Give the outside of the box a coat of brushing lacquer or enamel. When this is tacky, arrange the film in place and smooth the overhanging parts down against the tacky surface. The lacquer or enamel will hold the film securely. It is a good idea to treat the bottom of the tray with lacquer or other protective coating so it won't soak up water that spills down the sides.

A tray of this type can be made in a few minutes, and with care will last a long time. The pliofilm lining can, of course, be cemented over the entire inner surface in the manner described. The same method will make old, damaged metal trays usable. Rubber materials have a longer life when kept stored in dark, cool places.

When traveling, cardboard box tops of suitable size may be quickly adapted by this method for temporary trays.

Another application of these easily-made trays is for prints and photo-murals that require extraordinarily large trays which many amateurs prefer not to invest in.

For this work, to conserve developing and fixing solutions, the standard flat tray design may be changed to a trough design, similar to those used on farms for feeding stock. When lined with pliofilm or a similar inexpensive chemical-resistant material, the trough bottom takes the form of a curve through which the prints may be dipped in the same manner as roll film is tray developed.

Such troughs may be stored on end and take up little room stacked in a corner until needed again.



• (Top) A shallow box is made from 1/4-in. plywood or similar material fastened with brads in the corners and bottom. (Center) The box is lined with pliofilm, the edges extending down over the outside lacquer-coated sides of the box. (Bottom) Completed tray in use. This tray, made in about ten minutes, will hold any solution that does not attack rubber.





# THE **WILLO** CINE TRIPOD

## A TRIPOD OF EXCEPTIONAL QUALITY

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**CARRYING CASE \$3.50**

A strong, durable all-metal tubular tripod — rigid enough to meet the exacting demands of press photographers!

Ready for action in a flash. The tubular sections are instantly locked at any length by turning the legs clockwise, and a special locking device controlled by the knobbed handle prevents legs from spreading.

Universal Pan and Tilt-Top allows you to tilt and turn the camera smoothly to follow the subject, or lock the camera at any angle.

Alternating points, for indoor and outdoor use. Both handles fit under tripod head for convenience in carrying.

Three sections, weight 5 lbs. 24 $\frac{3}{8}$  inches folded, 59 $\frac{3}{8}$  inches fully extended.

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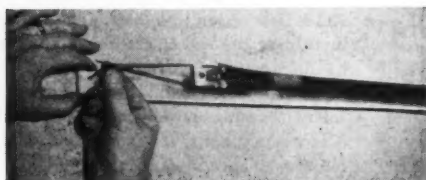
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## GADGETS, KINKS AND SHORT CUTS

### Roll Film Dryer

Roll films stretched horizontally, after processing and removing surface water with a cellulose sponge, will dry rapidly and evenly throughout the length of the film, an essential for finest grain negatives. Being secured at both ends, the film can not touch the wall or other objects to get scratched.

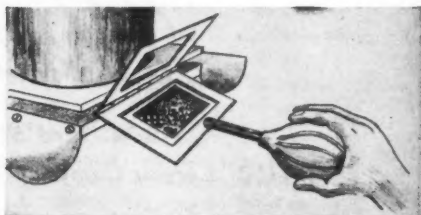


Two screw hooks are fitted near each end of a 2 x 1" strip of wood about 4" longer than the roll of film. This strip is fastened horizontally to the wall near the ceiling where the air is warmest and less dusty.

After washing, attach clips to the film and stretch between the screw hooks. A rubber band between the clip and the hook at one end takes up slack and accommodates various length rolls. If the film is wiped surface dry, it will be ready to print after about two hours in an average room.—C. Elmer Black.

### Dust Remover

A battery-filling syringe (obtainable through auto supply stores for less than a quarter) is useful in removing dust from the pressure plates in your enlarger, for no matter how lintless the tissue you use may be, the friction of rubbing creates a slight electrical field that attracts any stray lint or dust that may be around. It gives a really good blast of air to blow out dust from the camera as well.—Victor H. Wasson.



## Dusting Brush

Cartridges for 35 mm. film have a light-tight trap of black felt that makes a dusting brush for negatives and negative carriers. Flatten the cartridge into an obtuse angled "L" to provide a handle.

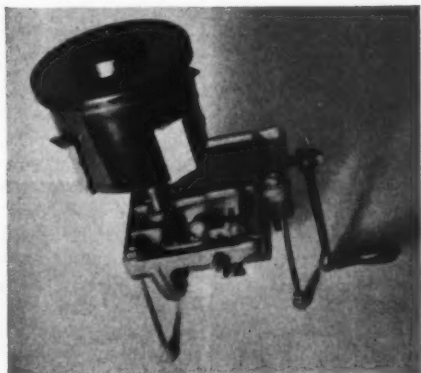
—Emil J. Richlik.



## Efficient Tank Agitator

To convert a discarded phonograph turntable into an efficient agitator, first cut the record disc with a hacksaw to the shape of a cross with the strips about one inch wide. These are then bent to an angle of 90°, forming four jaws that hold the tank snugly.

Legs consisting of long bolts can be fastened through the holes that formerly attached the motor to the phonograph case. These legs are locked on by two nuts, one pulled tight against each side of the housing.



The two legs away from the crank are cut shorter than the other to keep the tank tilted. This makes the film pass through the solution, whereas if the tank is level, the film has a tendency to pull the solution around with it. Rubber erasers that fit over the ends of lead pencils make good tips for the legs, and cost only a cent or two.

The advantages of this agitator are: (1) an adjustable speed control, already on the motor, (2) a strong spring-wound motor requiring no electrical or water outlet, (3) a governor on the motor insuring uniform speed. Such a motor should run at sufficient speed for nearly an hour on one winding, and at a second-hand store or junk dealers will generally cost from 25 to 50 cents.—Maurice Wayne Peters.



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Argoflex (shown above at right) sensational new twin reflex, f/4.5, 1/10 to 1/200 sec. pictures 2 1/4 x 2 1/4	\$ 38.00
Argus C 2 (shown above at left) rangefinder, flash unit f/3.5	30.00
Argus A 2 F, focusing mount, exp. meter, f/4.5	15.00
Agla Speedex, 13 exp., 2 1/4 x 2 1/4, f/4.5, 1/2 to 1/250 sec.	27.50
Detroit 400, coupled rangefinder, f/3.5, 1/1500 sec. f.p. shutter with Eveready case	69.50
Perfex 88, f/3.5, rangefinder, 1 sec. to 1/1250	36.50
National Graflex, f/3.5 B and L Tessar	87.50
2 1/4 x 3 1/4 Speed Graphic, f/4.5 K.A. in compur	111.00
Revere model 88, f/3.5 Velostigmat	28.50
Keystone 88, f/2.7 lens	34.00

### ENLARGERS

Argus EL 2, f/5.6 lens, 35 mm.	20.00
Elwood model AM, f/4.5 lens, up to 2 1/4 x 3 1/4	42.50
Federal 121, f/6.3 lens up to 2 1/4 x 3 1/4	17.95
Federal 348, f/4.5 lens, up to 2 1/4 x 3 1/4	48.50
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Robot I, Zeiss Tessar F2.8.....	64.50
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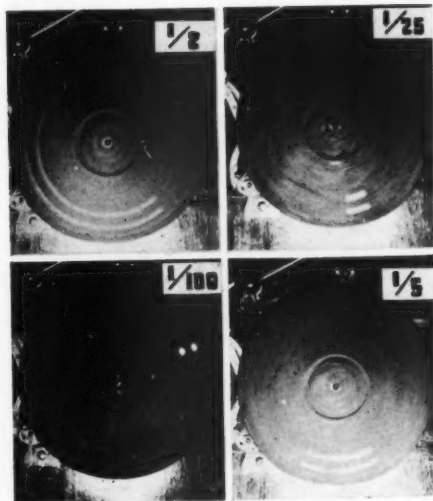
## Phonograph Tests Shutter

A circle of black paper on which some small white dots are placed can be spun on a phonograph turntable at 60 revolutions per minute to test your shutter.

The black paper is glued to a discarded 12-inch record. White dots are painted at the outer edge of the paper, or holes may be drilled in the record and white-top thumbtacks inserted.

If an electric record player is used, have it running long enough to get up to constant speed before beginning shutter tests. Either spring-wound or electric motors should be adjusted to get exactly 60 r.p.m.

Place the camera above the turntable at a convenient distance, for example, five feet. Light the turntable to produce normal exposure at a medium shutter speed. Make a series of exposures at the different shutter settings.



To identify the different exposures exactly, numbers cut from an old calendar may be pasted together on small cards, as follows: 1, 2, 5, 10, 25, 50, 100, 200. Place the card corresponding to the shutter speed in the field of view for each exposure and all of them will have permanent identification.

If turntable is moving at proper speed and the shutter is exact, a one-second exposure will show a complete white circle traced by the moving white dot.

Faster shutter speeds produce shorter arcs as shown in the illustrations.—Edward H. Nielsen.

## Table-Top Tripod

Turn a one-inch piece of hardwood on a lathe to a circular shape. A square or triangular block may be used, if preferred. The overall diameter of the circle should be about two inches.

Then drill a  $\frac{1}{4}$ " hole in the center to take a  $\frac{1}{2} \times \frac{1}{4}$ " S. A. E. bolt. Counter-sink the nut into the bottom side of the block so that the bolt will not be pulled loose by the weight of the camera, or the tension produced by screwing the camera or tilt top on. The lower edge of the block should have a  $\frac{3}{8}$ " bevel at a  $30^\circ$  angle.



At right angles to this bevel drill three  $\frac{1}{4}$ " holes equally spaced around the block. Make them about  $\frac{5}{16}$  to  $\frac{3}{8}$ " deep. Fit three unused pencils into these holes, sanding the wooden ends if necessary, but making sure they fit snugly. The ends with rubber tips should be trimmed fairly close to the metal band, to eliminate vibration.

The legs set at this angle give about an eight-inch spread. For wider spreads, other sets of holes may be drilled at the proper angles.

This tripod is also useful for close-up in the field—*Willis Bon.*

**Emulsion Speed Conversion Table**

Weston	Degrees Scheiner	German Din
1	9°	2/10°
2	12°	5/10°
4	15°	8/10°
8	18°	11/10°
10	19°	12/10°
12	20°	13/10°
16	21°	14/10°
20	22°	15/10°
24	23°	16/10°
32	24°	17/10°
64	27°	20/10°
128	30°	23/10°

Weston speeds are multiplied by two when the speed of the film doubles. That is, a film rated as Weston 16 is twice as fast as Weston 8. Scheiner and Din ratings increase by three units when the speed of the film doubles.

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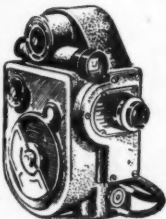
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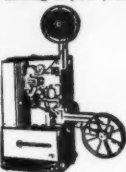
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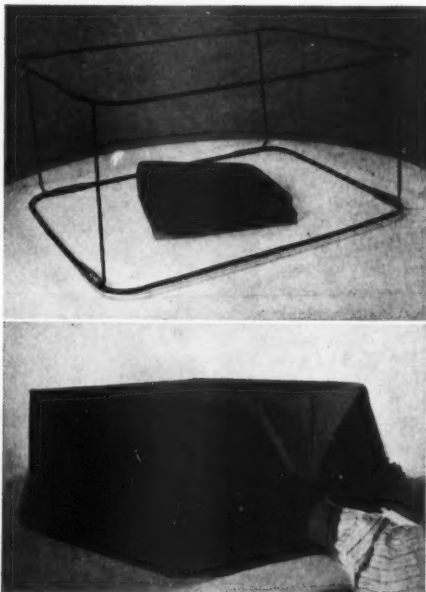
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## Changing Bag

An inexpensive, easily-constructed film changing bag made by covering a wire frame support with rubber sheeting, is handy for loading a developer tank, film holders, or for adjusting film in camera when jammed. It also will protect the camera during sudden storms while in the field, as the bag is waterproof.



For trips the wire frame is not used and the bag is folded into a compact accessory.

Make the wire frame about 18" long, 20" wide and 10" high. The stiff wire in an old auto cushion serves this purpose quite well. Clamp or wire the frame together with pieces of metal. Wrap cloth adhesive tape on these places as shown in the illustration.

The covering is of Maroon or other dark-colored rubber sheeting, which is opaque and waterproof. The material is 36" wide and  $2\frac{1}{2}$  yards are needed. Place the rubber sheeting on a flat surface and apply common tire cement along the edges spreading it one-half inch wide. When the cement is tacky, the edges of the material are pressed together. Then the same edges are folded over about one-half inch and cemented again so the joints are light tight.

The fold of the material closes one end of the bag. At this end measure about 6" from the outside edges to allow for cuffs to fit the wrists and arms when the hands are in the bag. About 2" is cut out from where the ma-



terial was measured. This is cemented around the cuffs to hold elastic in place.

When film and the necessary accessories are inside the bag the open end is folded over to exclude all light.

For trips, if the wire frame is not used the bag may be folded into a compact accessory.—  
*Terrell Nichols.*

### Extend the Focusing Scale for Closeups

The focusing scale on many cameras is not calibrated for distance closer than 6 feet. If the bellows extension permits, this scale may be accurately marked for closer distances.

First decide on the close-up distance that is to be marked on the scale, say a mark for focusing subjects five feet from the camera. On the scale then find the mark for the distance just twice this far from the subject, in this case the 10-foot mark.

With a compass or pair of dividers measure the exact distance from the 10-ft. mark to the infinity mark. The five-foot mark will be as far in front of the ten-foot mark as the ten-foot mark is from the infinity mark.

The only limitations to this system are the length of the focusing scale plate and the camera's bellows extension.

Intermediate marks may be found in the same way. The 20-foot mark is halfway between the ten-foot and infinity marks; the 40-foot mark halfway between the 20-foot mark and infinity, etc. Infinity is often indicated with a lazy eight (see illustration).

—*Ralph Haburton.*

### Maine Guides to "Shoot" on Sight

Maine guides are this year being instructed in photography as they prepare to add expeditions of camera fans.



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An index covering MINICAM Magazine, Volume 2, September, 1938, through August, 1939, is available at ten cents the copy; or free with a \$2.50 one year subscription or renewal.

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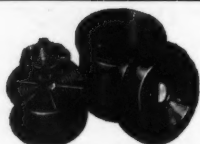
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## Reflex Takes Candid Shots

By B. G. Silberstein

There's more than one way to skin a cat or hold your camera. If it is the ground glass type, the positions shown here will enable taking otherwise impossible candid shots.

Fig. 1 illustrates the "sky" method where the camera is turned up-side-down. The photographer's head is tilted backward in order to look into the ground glass.

Fig. 2 illustrates the horizontal method where the lens can be either directed towards the right or the left of the photographer and is useful in taking candid pictures, as well as shoot-



ing around the corners of a building without being seen.

Fig. 3 is merely a variation of the standard method of focusing and simply involves turning the lens either to the right or to the left at a ninety degree angle from the direction in

which the photographer is facing. This method is by far the easiest and most frequently used. With it, the writer has photographed the natives looking directly at the camera without their realizing that their picture is being taken. When using the method illustrated in Fig. 3, it is a good idea to have a friend pose fifteen or twenty feet away facing the camera and going through the gestures of motioning to the right or left and to change the position of arms, feet, etc. The more versatile in pantomime your "stooge" is, the more attention he will attract away from your camera while you continue to shoot the bystanders.

Natives in Mexico and Guatemala often are



convinced that when they allow a picture to be taken of them, something is taken away from them which can be best described as a spiritual loss, the women are even more timid than the men when faced with a camera. Many amateurs come back from these trips with only pictures of natives fleeing from the camera rather than good studies of various types to be found. Consequently it will be well to familiarize yourself with these three types of focusing before your next vacation trip, and in the meantime you will find that these ideas will assist in obtaining unusual pictorial shots of familiar material right at home.

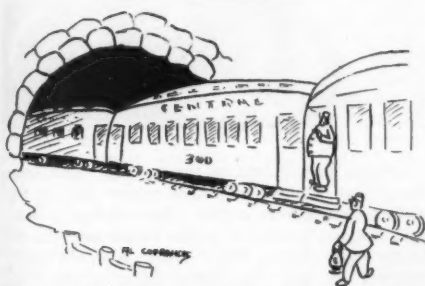
### Tilt-Top for Simple Cameras

This tripod tilt-top can be made to fit any camera lacking a tripod bushing. It can be easily made for about 35 cents for material. It makes it possible to put the camera on a tripod for time exposures.

It is made of  $\frac{1}{16}$ " brass cut to shape with a coping saw. The lower plate (A) has a  $\frac{1}{4}$ " standard thread nut soldered to the center for the tripod mounting. A long stove bolt and winged nut (B) fasten the camera support (C) to the tripod mounting and give the desired tension to the tilt top.

In use, the tilt-top is mounted to the tripod in the usual manner, then two heavy rubber bands are crossed over the top of the camera and hooked to the protruding legs of the camera support.

—Howard W. Rozelle.



"The engineer always stops here to develop his films!"



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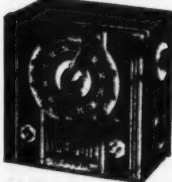
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## COVER

The cover this month is by De Soria, reproduced from a 4x5" Kodachrome, taken in Bermuda. Actually only a small part of the transparency was used, the picture being an enlargement from a rectangular area about 1x1 1/2" in size. Kodachrome cut film was used and the exposure was 1/100 at f/5.6.

## INSIDE COVER

This 35mm. Kodachrome, by Harry S. Kaufman, Jr., was taken with a 135mm. lens to get a large image, shooting from the deck of the vessel. The camera was held against the face to give the steadiness that is necessary when using a telephoto lens. The reproduction is from the book "Kodachrome And How To Use It" by Ivan Dmitri (\$3.95) published by Simon and Schuster, Inc.

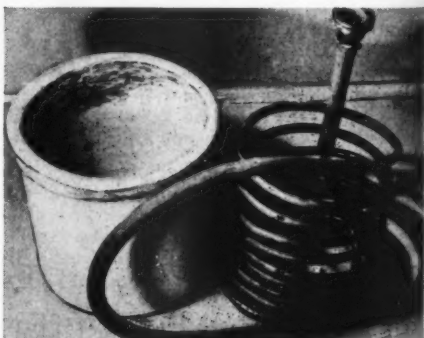
## Slip-Proof Tripod Feet

The legs of older-type tripods often have only metal tips that slip on smooth surfaces and cannot be used without injury to bare floors.

Three inexpensive erasers, the type that slip on the ends of pencils, may be placed over these metal tips.—Willis Bon.

## Cooler for Film Washing

The illustration shows a simple, satisfactory cooler for running water for washing films in hot weather.



Obtain fifteen feet of three-eighth inch copper tubing, a short length of rubber hose to fit, and a two gallon crock. The tubing is bent into a spiral around a gallon bottle and placed inside the crock. The crock is filled with cracked ice and the warm water supply run through the coil. The temperature of the outlet may be controlled by regulating the rate of flow through the coil.—Gordon Bicknell.

## The Beach Is Your Studio

(Continued from page 30)

Late in the afternoon or early in the morning you will find interesting shadows, of people or familiar objects on the beach. You can even shoot silhouettes. When you get out on the boardwalk or midway for a hot-dog or a ride on the roller-coaster, take the camera along for candid shots of tiny people with big frankfurters, oversized people mopping perspiring faces, the side-show barker calling his wares, the coaster zooming down a steep grade, or a lost child crying for its mama.

### Rus Arnold

• Rus ("Flash") Arnold was originally a New York feature writer and columnist. Arnold bought a camera to illustrate some magazine articles he was writing. A trip to Mexico and Hollywood ended in his abandoning his writing career to turn to press and commercial photography. Returning East he found it impossible to match the



effects of Hollywood sunlight, until he turned to flash, becoming one of the first to see the possibilities of quality photography with flashbulbs. MINICAM persuaded him to return to writing long enough to do some articles, mainly on his pet subject, flash photography. Shortly after that he went to work for the Wabash Photolamp Corp., manufacturers of Superflash, and has spent all his time since then travelling around the mid-West lecturing and giving demonstrations at newspapers, camera clubs, photographers associations, university short courses, and conventions. Recently he paused just long enough to write a book on Flash Photography, which should be out any day now.

In the past two years he has been photographed nearly a thousand times, but always in gag or demonstration shots. He has nearly a hundred negatives of himself jumping off chairs or ladders, or even tables, to demonstrate focal-plane synchronization to press photographers.

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## Types of Beauty

(Continued from page 38)

woman but Virginia's slim, adolescent body is the public's conception of athletic feminine beauty. So the model agency calls in Virginia. She poses quite willingly, (for \$10.00 an hour) to help the photographer put his phantasies into pictures.

Many photographers have only a limited selection of models and are sometimes tempted to express an idea that is not easily associated with the type of beauty used.

By referring to the classifications in this series he may check each model's qualifications against the types illustrated and determine the main pictorial subjects for which she is suited.

● When pictures are not intended for wide acceptance, the photographer may suit his art to his own audience. Advertising photographers are not so free in their choice. They must respect the "dream girl" wished on the public by Gold Stripe, and lately by Nylon; she has neither stomach nor muscles, nor is there an ounce of fat to spare. This is Virginia, the girl that Esquire makes men dream about. To a lesser extent salon exhibitors, whose work is scrutinized by juries, must keep the same general preferences in mind.

For plastic studies of the figure, the Virginia type would be less appropriate than the "Perdita" type illustrated last month, lacking the full, rounded curves that make a strong, rich pattern under dramatic lighting effects.

The Virginia type, however, can be photographed appropriately as a "nymph" or "woodland sprite" or any of the other dainty mythical creatures that pictorial photographers still like to portray. It is easy to visualize the contrast of Virginia's slim figure with a large veil or scarf billowing in the breeze behind her—a perfect picture of carefree and happy summer days.

● The first step in the understanding of beauty



is the classification of types that can be visualized as mental yardsticks for the analysis of real life subjects, paintings and photographs. It is to this end that the statues in this series of articles were created and the photographs made.

This article is one of a series on Types of American Beauty. The photographs are reprinted from *ESQUIRE*. The illustrations shown are all taken from one statue, specially created to illustrate Type 2.

## Being Critical

(Continued from page 72)

figure and the line from the poster are the most important elements. The thrust of the building's mass against the earth is emphasized and contrasted with the complete relaxation of the man.

These two effects are quite different, and the first composition, more static, may be preferred because the immobile mass of the building harmonizes with the inert figure.

Others may choose the more dynamic composition because there is a suggested contrast between the "live" man who appears immobile, and the lifeless building which has been given an effect of pressure and power.

This kind of subtlety in composition can lift a "documentary" picture out of the class of mere reporting.

● "OUTDOOR GIRL" CAN BE IMPROVED ONLY by trying again and paying closer attention to details in every phase of the photographic process.

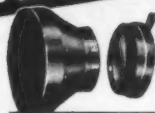
In arranging this composition, more space above the head would produce a 'roomy' feeling in keeping with the title chosen. But no portrait made in obviously artificial light will appear to be taken outdoors just because it is given that kind of title. To have any significance at all, titles of photographs should, in the main, be logical or give a humorous, ironical, or satirical twist to the combination of picture and title.

The focus in this picture was carried too far behind the face, the hair near the cheek being in focus although the entire face is slightly



"Outdoor Girl". 2 1/4 x 3 1/4 Speed Graphic, two No. 1 photo floods at 5 feet, Agfa Superpan Press film, f8, 1/25 second.

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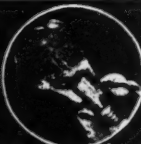
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unsharp. Focusing accurately on the eyes will put the plane of focus where it belongs.

Avoid double highlights in the eyes by arranging the lights to produce only one main catchlight in each eye and using only soft illumination to "fill in" the shadows. Diffusers of tracing cloth, cheesecloth, or any of the commercial diffusing mediums, such as frosted Transpara or Fiberglas are suitable for softening the "fill-in" lights.

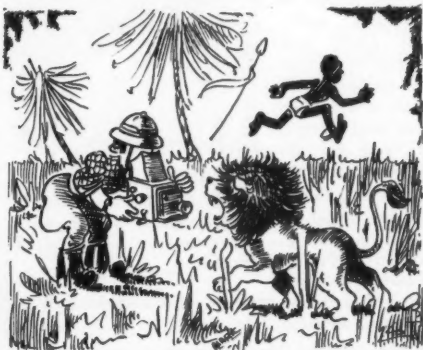
Development must have been careless for there are unmistakable fingerprints in the area behind the girl's head. These may have been caused by handling the film, before or during development, with fingers not free from hypo or other chemicals which retard development.

The brownish color and muddy tones of the print indicate shortened development time to "save" an overexposed print.

To produce excellent prints, even perfect negatives must be printed correctly. Here is a sure guide to correct exposure time: Using a metol hydroquinone developer (D-72, Agfa 103, etc.), at from 65 to 70°F, give a printing time that produces rich blacks in 60 to 75 seconds for contact paper and from 1½ to 2½ minutes for enlarging paper, without producing grayish whites.

To determine this correct printing time, leave every print in the developer for the full time, no matter how much overexposure it has received. Only if a print has been given full development, can anyone tell how much less exposure is needed.

Probably no amateur photographer underdevelops his underexposed prints, but thousands of them try to "save" overexposed prints by underdevelopment. The knowledge gained by allowing overexposed prints to develop fully as a guide to correctly decreasing printing time is of much more value than a hundred prints "saved" by jerking them out of the developer too soon.



"My, my, how these telephoto lenses do bring things up nice and close!"

## Shooting Front-Line Action

(Continued from page 50)

aerial cameras developed during the last war and in the ensuing 20-year Armistice for mapping enemy terrain, munitions and fuel depots, and giving Headquarters a general idea of troop concentrations during a battle.

Assembling these aerial photographs into an accurate paste-up is an art that takes years of training. Each aerial picture is shot, wherever possible, to overlap about 50 percent on those showing adjacent areas. This permits inspection of the prints in a stereo viewer for comparison and exact assembly.

The next step is to mark all points that are identical on the adjacent prints, when viewed through the stereo device.

These points of similarity are used to "register" the prints as they are assembled on a specifically designed peg board. All but the center part of each print is cut away, eliminating overlaps. Finally they are made into a "photo-mosaic," which is a term for the irregularly-shaped prints pasted together on one board. This paste-up is copied on one negative and the necessary duplicate photo-maps printed from it.

This thorough mapping of enemy territory is almost impossible in countries that have adequate air defense, and generally there are big gaps in the photographic maps where anti-aircraft fire or pursuit planes have driven off the enemy aerial cameramen.

Some observers feel, however, that during the long "stalemate" on the Western Front last Fall and Winter, German cameramen did their utmost to get complete up-to-date aerial photographic maps of both England and France. The leaflet-scattering British planes sent over Germany last winter, may have brought back similar pictures for the Allies.

In war or peace, it appears, Photography is "here to stay".

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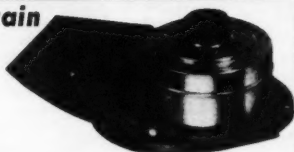
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## Don't Forget the Label

(Continued from page 70)

caption means a lot more to everybody, than the same series with no explanation. On top of that, the signs that mark historical sites, national parks, and a thousand other kinds of vacation subjects, have more atmosphere and interest than pages of carefully lettered text.

Maybe you've left captions out of your album because you forgot important facts about the pictures by the time the prints were ready to paste in. Maybe you didn't want the tedious job of lettering. Next time, get the best captions with the least trouble—right on the spot.

When you take a label picture, remember:

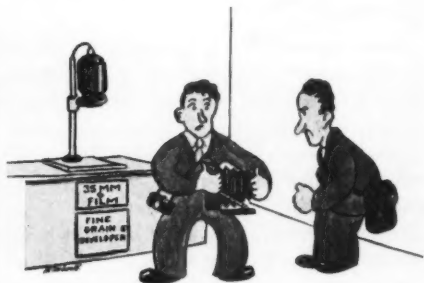
1. The picture must tell its story plainly and quickly. It is primarily an explanation of other pictures in a series. Usually keep out anything that draws attention from the main message.

2. The best label pictures are sharply focused, snappy printers, and easily read.

3. Lighting should be diffused in most cases. Direct sunlight often casts shadows over part of the lettering or produces extreme contrast that makes the negative hard to work with.

4. A label picture is really a copying job on a large scale, so a slow panchromatic film is the best choice, having fine grain and brilliancy.

5. Choose a paper that will produce the most readable print. Avoid a paper with a textured surface; choose a matt, velvet, or semi-matt paper. One warning: Keep label pictures in mind as you go along. They are easy to get, also easy to forget until it's too late. Better take too many than miss one you'll need later. An occasional picture missed in a series will hardly be noticed, but there isn't any satisfactory substitute for the gaping hole left by a label that isn't there.



"Take pictures with this? . . . I thought you play it!"

# CAMERA CLUB

--- NEWS AND IDEAS ---

• **THE BARTLESVILLE** (Okla.) Camera Club has arranged to have an exhibit hanging at all times at 208 South Osage Ave. Traveling exhibits of the Photographic Society of America and exchange exhibits with other camera clubs will furnish the pictures. Hours are from 10 a. m. to 10 p. m.; no admission charge.

• **THE PONY Express Camera Club** of St. Joseph, Mo., (starting point of the Pony Express trail) is making an exhibit of 200 salon prints covering the industrial, agricultural, and cultural life as well as scenic beauties of this section. The scenics will be shot in Kodachrome, and will be projected twice daily during the exhibit.

This camera club is also working to organize each of the states and possessions to build up one big show, similar to this. Briefly, this is the idea: two or three prints from each state will be selected by inter-club competition, and sent to the Pony Express Camera Club for assemblage. The resulting exhibit will be sent on the road to each camera club participating, or others who may be interested.

Further information on this project may be obtained from Mr. Jack Marx, Pres., Pony Express Camera Club, St. Joseph, Mo.

• **PHOTOGRAPHS OF** the members of the Delaware County Camera Club are printed in the April issue of the club's bulletin. A "rogues gallery" like this makes a valuable as well as entertaining display in any club bulletin or on walls of the club room.

• **TO TEST** the members' ability and ingenuity in making pictures to fit assigned titles, a special competition was held by the Albany (N. Y.) Y. M. C. A. Camera Club. Rules of the contest were as follows:

(1) Titles will be assigned by lot to members who desire them. No member will be forced to take a title, but may take up to three.

(2) Each title taken will cost ten cents, or three for a quarter.

(3) At least half of the money collected will be distributed as prizes.

(4) Any person taking a title and failing to enter a print on that title will be fined a quarter. Likewise, a similar fine will be assessed if the judging committee feels that a print turned in does not make a fair effort at fitting the title.

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## SALONS

Closing Date	Name of Salon	For Entry Blank, Write to	Number of Prints and Entry Fee	
July 15	1940 Annual International Salon, Muncie Camera Club	Salon Committee, Muncie Camera Club, 223 East Jackson St., Muncie, Ind.	4	\$1.00
August 10	First Annual Cape Cod Salon of Photography	L. A. Thayer, Sec., Photographic Society of Cape Cod, 68 E. Main St., Hyannis, Mass.	4	\$1.00
August 14	First Annual Champlain Valley International Salon of Photography	The Salon Secretary, Robert Hull Fien- ing Museum, Burlington, Vt.	4	\$1.00
August 17	First Pan Pacific Y. M. C. A. Salon of Photography	L. G. Stevens, 3124-A George St., Honolulu, Hawaii	4	\$ .50
September 9	Second Annual Atlanta Nation- al Amateur Salon	Mrs. George Bird, 685 Morningside Drive, N. E., Atlanta, Ga.	4	\$1.00
September 12	1940 International Salon of the Photographic Society of America	John P. Mudd, Photographic Society of America, 173 Manheim St., Philadel- phia, Pa.	4	\$1.00

## EXHIBITS

City	Street Address	Dates Open	Name of Exhibition
Lititz, Pa.	Lititz Springs Park	July 4 to 21; 7 to 10 p. m. weekdays, 1 to 10 p. m. Saturdays and Sundays	Third Annual Lititz Springs Salon
Muncie, Ind.	Art Building, Fairgrounds (25 cents grounds admis- sion)	July 28 to Aug. 4; 8 a. m. to 10 p. m. daily	1940 Annual International Salon, Muncie Camera Club
New York City	Y. M. C. A. Building, World's Fair	July 4 to 14; 9 a. m. to 12 p. m.	First Annual All-Y. M. C. A. Salon (25 honor prints)
New York City	Penn Camera Exchange, 126 West 32nd St.	July 16, 8 p. m.	Demonstration: "Portraiture for the Beginner" by Morris Germain, A. R. P. S.
New York City	Belgian Pavilion, World's Fair	May 11 to closing of the Fair; 10 a. m. to 9 p. m.	Gevaert Exhibit
Vancouver, B. C., Canada	Vancouver Art Gallery (Free except Thursdays)	July 2 to 28; 10 a. m. to 5 p. m. weekdays, 2 to 5 p. m. Sundays, closed Mondays	Fourth Annual 100-Print Salon of the Photographic Society of America

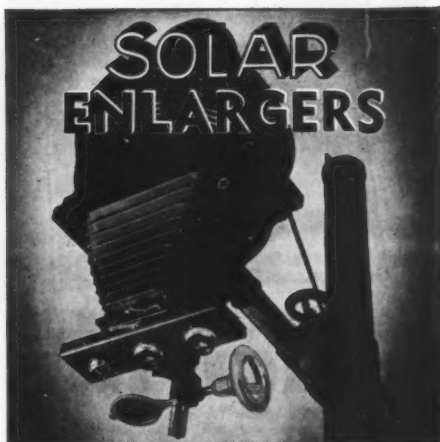




• ARTHUR FELLIG, NEW YORK FREE lance news photographer, had a narrow escape from either death or serious injury the other morning when he was shooting a water main break in front of the Park Central Hotel. He was directing his camera on the flooded intersection near the hotel entrance when there was a loud rumble behind him under the street. A vast bubble appeared and grew on the surface of the pavement. Workmen who knew what that asphalt bubble meant, ran for their lives. Photographer Fellig looked up from his finder at the moment the pavement burst with a roar. A geyser of steam, mud and gas shot into the air, flinging mud as high as the 14th floor of the hotel. Fellig was knocked flat. The camera rolled from his hand. Bruised, shaken and spattered with mud from head to foot, the photographer stumbled around in the fog of steam to find his camera. Backing away from the roaring geyser, he took several excellent shots which later front-paged every New York evening newspaper, and were gobbled up by the picture agencies for syndication.

• NEW YORK'S PEPPERY MAYOR LA Guardia has aimed another blow at the "press card" racket. Meaning once and for all to put an end to the illegitimate trade which has hampered both reporters and news cameramen in their daily assignments, the Mayor instructed Police Commissioner Valentine to inform all policemen throughout the city to scrutinize all "PRESS" signs displayed on automobiles and to seize those that were not officially issued by the police department.

• It is a rare occasion when Mrs. Franklin D. Roosevelt refuses to pose for a news picture. But in Raleigh, N. C., recently, she refused to pose beside a picture of President Roosevelt in the headquarters of the North Carolina for Roosevelt Club, a third term organization. "I think it would be a mistake," she said. "It would be taken as an indorsement of a third term. I'm in a vacuum about it. I don't want to do anything which would be interpreted as favoring or opposing it." This,



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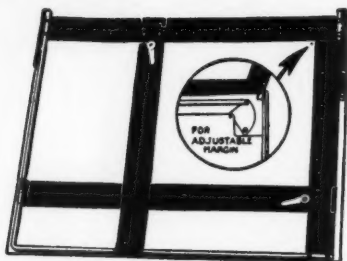
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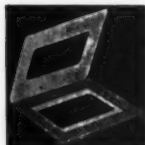
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methinks, is an object lesson to news photogs to watch their backgrounds carefully.

• A NEW FLUORESCENT LIGHT FOR enlarging purposes has been developed by Frank J. Merta, veteran Acme Newspictures cameraman. Six of these "cold light" lamps have already been installed in Acme's New York darkrooms, and two of them are being successfully used by the New York News. The lamps, known as the "Aurora Foto-Lite", are made for both horizontal and vertical cameras. Each assembly of eight daylight fluorescent lights is equivalent to one 120-watt mazda lamp, and the light output is about 500 watts.



The illustration shows the first "Aurora Foto-Lite" put into service in the darkroom of Acme Newspictures on an 8 x 10" horizontal enlarger.

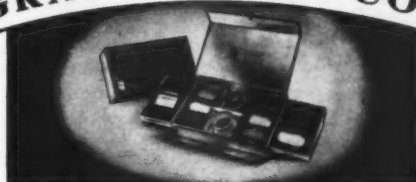
Merta has long felt that the heat of mazda and mercury lights retarded the work of the news printers. One year ago he started experiments with fluorescent lights and the extension of their uses in the news photographic field. He spent many months trying out various fluorescent lamps, and even had a grid type of lamp blown to see if he could get the desired results. He finally decided on the eight gang assembly, e. g., eight vertical or horizontal lights to cover an eleven-inch square opening.

It is claimed that the light created by the eight fluorescent tubes is easier on the darkroom man's eyes, that he can focus better and that the light which covers an eight by ten negative for enlarging will give an evenly exposed print. He says that tests have shown the light is faster for printing than a mercury "M" tube and the prints are snappier in tone. His fluorescent lamp, he declares, has all the desired qualifications for cool, fast and even light for projection printing, and is economical. He says that it has resulted in a saving in electric current of over 60% for both Acme Newspictures and the New York News.

## CONTEST CALENDAR

Open To	Subjects	Prizes	For copy of rules, write to	Contest closes
Graflex, Graphic or Crown View camera users in Continental U. S., Alaska, Hawaii and Puerto Rico.	Five classes: Portrait and Pictorial; Action; News; Industrial and Scientific; Color (transparencies only).	In each class: \$100, \$50, \$25, \$15, \$10, and ten \$5 prizes. Also \$250 grand prize and seventy-five Medals of Award	Folmer Graflex Corp., Rochester, N. Y.	September 8
Anyone	Gardens on Parade, N. Y. World's Fair		Mrs. Earle S. Rhine, Chairman of Photo Exhibits, GARDENS ON PARADE, World's Fair, New York	August 31
Residents of Union County, N. J.	Five classifications: (a) Scenes, (b) Activity, (c) Human Interest, (d) Nature and wild life, (e) Best photo taken in Union County Park System	Six merchandise awards in classes a, b, c and d; one award in class e. Total of twenty-five awards valued at \$201.68	Amateur Photo Contest, Union County Park Commission, Elizabeth, N. J.	September 30
Anyone	Any place or object within the Commonwealth of Pennsylvania	\$250, \$100, \$75, \$50, six \$25 prizes, twenty-five \$10 prizes, twenty-five \$5 prizes	Pennsylvania Pictorial Contest, Department of Commerce, Harrisburg, Pa.	September 14
All amateur photographers	Subjects on Treasure Island (Golden Gate Exposition), San Francisco-Oakland Bay Bridge, or Golden Gate Bridge	Twenty-two weekly prizes and one grand prize at close of the Fair. Weekly prizes include G. E. Exposure Meters and Photoflash lamps	General Electric Exhibit, Treasure Island, San Francisco, Calif. (Also available from photo dealers in western states.)	September 29

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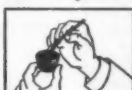
An entirely new medium for coloring photographs, transparencies and lantern slides. No preliminary sizing or fixing necessary. Eight colors in the form of processed cotton which can be blended to obtain many other colors and shades. The Kit includes receptacle for water, bottle of erasing fluid, sticks for making cotton swabs, instruction booklet and white permanent-record pencil.

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1. Twist small wad of colored cotton around pointed end of moistened stick.



2. Dip cotton-covered end of stick into water.



3. Apply color with light circular motion.

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# Book Reviews

**PHOTO-LAB-INDEX — SUPPLEMENTS 3 AND 4.** 128 pages. Morgan & Lester, publishers.

Supplement No. 3 deals entirely with Photographic Chemicals, and will be bound separately to be sold at 50 cents to non-subscribers to the Photo-Lab-Index.

This section is a concise dictionary of ingredients employed in modern photographic practise. There are over 400 photographic chemical terms listed alphabetically, offering their synonyms, trade names, chemical formulas, molecular weights, physical and chemical characteristics, solubilities, affinities, commercially available grades together with their most common applications and other useful data.

The Photo-Lab-Index is a standard reference for all photographers requiring complete and up to date information on formulas, films, papers, etc.

**NATURAL COLOR PROCESSES**, by Carlton E. Dunn. 232 pages, 5 1/2 x 8 inches in size, 2 illustrations in color. American Photographic Publishing Co., \$2.

This is a new and enlarged revised edition of this important hand book on color processes. The author is an authority on carbros, but he is partial to no particular process and covers all of the methods in use today. The chapter headings are:

- (1) Simple Color Analysis
- (2) Making Color-Separation Negatives
- (3) Autotype Trichrome Carbros
- (4) Belcolor Printing Film
- (5) The Chromatone Process
- (6) Reliefs and Imbibitions for Color Prints and Transparencies
- (7) Duxochrome and Colorstil Color Printing Films
- (8) Dye Mordanting
- (9) Screen Color Transparencies
- (10) Dufaycolor
- (11) Multilayer Color Processes
- (12) The Finlay Process

It is a working manual that can be kept in the color workshop for constant reference.

**PHOTOGRAPHIC ENLARGING.** By David Charles. 101 pages, 5x6 1/4", illustrated. Iliffe & Sons, Ltd., London, publishers.

This book deals with enlarging equipment and procedure for both beginner and advanced amateurs. It describes the advantages and limitations of each type of enlarger, including home-built apparatus. Positive instructions are given for making the very first enlargements,

followed by many variations of the basic procedure for specified circumstances or purposes.

Among the sixteen chapters of the book are included the following: Enlargers Compared, Lenses for Enlarging, Materials and Chemicals, The Enlarging Room, Enlarging Accessories, Making the First Enlargement, Enlarging in Practice, The Ideal Enlarging Negative, Enlarging Without a Darkroom, and Pictorial Modifications.

### Booklets and Catalogs

Offered by manufacturers without charge unless otherwise noted

#### Montgomery-Ward & Co. Catalog.

Pictures and describes camera equipment, supplies and accessories. From: Montgomery-Ward & Co., Dept. P, Chicago, Illinois.

#### Lafayette Camera Catalog No. 81.

Features cameras, enlargers, film, printing paper, chemicals, and new accessories. For free copy write nearest branch of Lafayette Camera Division, Radio Wire Television, Inc.,

901 W. Jackson Blvd., Chicago, Ill.

265 Peachtree St., Atlanta, Ga.

110 Federal St., Boston, Mass.

542 E. Fordham Road, Bronx, N. Y.

24 Central Ave., Newark, N. J.

90-08 166th St., Jamaica, Long Island, New York.

#### Agfa Ansco Formula Book (10c).

For copies of the revised edition of this book, listing formulas for developing, fixing, short-stop, toning, reducing, intensifying, and desensitizing solutions, with a section describing the chemistry of development and giving new information on developer exhaustion tests and time-temperature compensation, send dime to Agfa Ansco, Binghamton, N. Y.



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# ★ NEWS

ABOUT PHOTOGRAPHIC PRODUCTS

## Agfa Flash Cameras

The Agfa-Ansco Pioneer cameras (PB20, \$2.65) and (PD16, \$2.95) are synchronized for flash shots using the Agfa Flash Unit (\$1.00) easily attached to the top of the camera. Negative sizes are 2 1/4 x 3 1/4" (PB20) and 2 1/2 x 4 1/4" (PD16).

Instantaneous and bulb exposures on the shutter, with shutter release on the body of the camera.

The Agfa Chief, offered in the same sizes (PB20, \$3.45; PD16, \$3.95) has as extras (1) two-zone focusing for near and distant subjects, and (2) built-in yellow haze filter that moves into position when camera is focused for far subjects. Portrait attachments and light yellow filters are accessories.

Made by Agfa Ansco, Binghamton, N. Y.



## Kodak Brownie Reflex

The Eastman Brownie Reflex camera (\$5.25) takes twelve 1 1/2 x 1 1/8-inch pictures on 127-size roll film. Film for this camera must be numbered from 1-12, and Eastman Kodak film is so numbered will, for a short while, be identified by a star on each end of the box it comes in.

Brownie Reflex has a molded body trimmed in satin aluminum. A lock lever on the back of the camera body permits withdrawing roll holder for loading and unloading. Tripod socket and molded film-winding knob are located at the bottom of the roll holder.

Lens is a 50mm. fixed focus meniscus, working at 5 ft. and beyond. The No. 13 Kodak Portrait Attachment permits making closeups at about 3 1/2 ft. Shutter gives instantaneous and Bulb exposures and is operated by plunger release near the bottom of the case toward the front.

Made by Eastman Kodak Co., Rochester, N. Y.



## Saymon-Brown Coupled Range Finder

Coupling directly to the lens standard, the new Saymon-Brown Range Finder (\$13.50) can be installed on Speed Graphic, Bee Bee, Linhof, Recomar, Jewel, Ihagee, and similar cameras for \$1.50. Arrange for installation through local dealers.

Advantage of this type of range finder coupling is that it gives accurate focus whether or not lens is first set on infinity stop.

Range finder is claimed to work with any camera on which it is fitted, regardless of the lens focal length.

## Photogenic Lipstick

Helena Rubinstein's Night Red lipstick is said to have the correct chromatic values for photography under most lighting conditions.

### Foth Derby Range Finder

The Foth Derby II (with f3.5 lens, \$31.00; with f2.5 lens, \$36.00) is fitted with a superimposed-image type range finder made in America. Amber-colored center image makes for easy matching of the two images at all distances from infinity to 2 1/2 ft.

Regular model Foth Derby cameras can be converted to the Model II for \$11.50. Arrange for conversion through local Foth Derby dealers.

Distributor of Foth Derby cameras: Burleigh Brooks, Inc., 126 W. 42nd St., New York City.



### Goodspeed "Auto-Focus" Synchronizer

The "Auto-Focus" model of the Goodspeed flash synchronizer (\$15.00) has a double-acting socket that slides up and down on an inclined track to center all bulb sizes in the 5 1/2-inch chrome reflector.

Reflector contains six penlite batteries, eliminating separate battery case. Outlet is provided for multiple-flash shots. Synchronizer may be adjusted to most cameras by a "mechanical-pencil" setting.

Models are also made to fit the Contax, Leica, Super Ikonta B, Korelle Reflex, National Graflex and Rolleiiflex at no increase in price.

For further details write: Goodspeed, Inc., 220 5th Ave., New York City.

### Interchangeable Meter Dials

The Lutrix photo-electric exposure meter (\$13.75) has both a standard computer dial on which combinations of exposure time and lens opening are read, and an additional dial, easily fastened on the meter, which permits presetting exposure time and reading the correct f-value directly, useful for movie shots.

Meter also has screws and adapter for attaching it to standard view-finder bracket on a camera. Adapter can be used with meter in or out of its case. Strap for wearing meter on the wrist is also furnished.

Complete brightness range of practical photography is said to be covered by meter's cell. Computer is laid out in half stops, and covers film speeds from Weston .3 to 800 (Scheiner 5 to 38).

Distributed by Intercontinental Marketing Corp., 8 West 40th St., New York City.



### Reversible Film for Memo

Agfa's Superpan Reversible film is now supplied in a cartridge fitting the Agfa Memo camera (48 single-frame, 24 double-frame exposures, \$1.00).

This film is used to make film strips for salesmen, lecturers, demonstrators, and teachers directly in the camera, and eliminates the need for printing positive film strips from negative rolls.

Seven authorized Agfa Ansco laboratories in the United States and Canada process this film by the reversal method for 50c a cartridge.

### Pract-o-Shade

Pract-o-shade, a combination sunshade and filter holder of spun aluminum, is "flocked" with minute pieces of light-absorbing black felt on the inside, comes in sizes to fit most cameras.

For literature write: Practo Photo Accessories Corp., 109 S. 5th St., Brooklyn, N. Y.

Information about lenses, focal lengths, magnifications on the one handy...

### HYDE OPTICAL SLIDE RULE



The only Slide Rule which measures the depth of focus of all focal length lenses. Contains five fundamental formulas pertaining to the optical use of lenses. Also converts from Fahrenheit to centigrade, ounces to cubic centimeters, millimeters to inches, grains to grams, and vice-versa.

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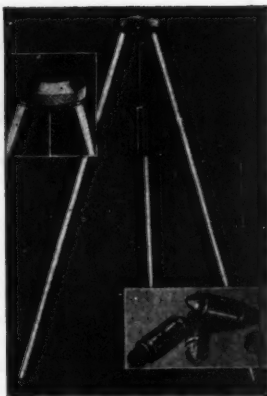
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### Superflash and Flood Lamp Price Reduction

Wabash Photolamp Co., announcing new prices, points out that the No. 0 Superflash now sells for 10c, the lowest list price at which a flash bulb has ever sold. The new-size Superflash Press 50 (18c) has a 50,000 lumen-second power output, extra long-peak flash, and works with either Compur or focal plane shutters and all synchronizers. The standard No. 2 bulb has its rated output increased from 56,000 to 70,000 lumen-seconds. Price reductions and increased light output figures are as follows:

	Light Output (in Lumen Seconds)		Price	
	Former	Present	Former	Present
No. 0	25,000	25,000	\$0.16	\$0.10
Press 40	40,000	40,000	.20	.16
Press 50		50,000		.18
No. 2	56,000	70,000	.25	.22
No. 2A	80,000	80,000	.30	.23
No. 3	140,000	140,000	.60	.40
No. 2B	42,000	42,000	.30	.28
No. 3B	85,000	85,000	.50	.45
<b>SUPERFLOOD BULBS</b>				
No. 1			.20	.15
No. 2			.40	.30
No. 4			1.60	1.20
Reflector Superflood			1.10	.85



### Stuart Mighty Midget Reflector

Designed to take the G. E. No. 5 photoflash bulb, the Stuart Mighty Midget Reflector (\$1.95) has an Auto-Snap bulb ejector and a 5-inch spun aluminum reflector that is claimed to increase the No. 5 bulb's rated 15,000 lumens to an equivalent of 45,000 lumens.

For further details write: The Stuart Studio, 729 South Wabash Ave., Chicago, Ill.

### Harrison Filter Set

The Duraline Filter Set (\$6.00 and up) has four filters, an aluminum filter-holder, Aero-lock ring for attachment to camera lens barrel, and a black-felt-lined sunshade of machined aluminum. Elk-hide case is also felt-lined. Price of set depends on lens size.

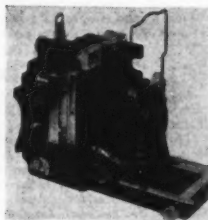
For literature, write: Harrison & Harrison, 8353 Santa Monica Boulevard, Hollywood, Calif.

### Speed Graphic Frame Finder

A redesigned wire frame finder is supplied on the Anniversary Speed Graphic models. Finder has perfectly rectangular shape, accurately outlining the field of view, and telescopes behind the camera's all-metal front standard when not in use.

Chromium-plating on finder gives better visibility and durability, it is claimed.

Made by Folmer Graflex Corp., Rochester, N. Y.



### Bico Enlarger Covers

Bico Pliofilm transparent enlarger covers (Junior size, 18x31", 85c; Senior size, 25x32", \$1.00) are dust-proof, acid-proof, and are claimed not to crack, curl or stick.

For further details write: L. R. Biber Co., Times Square, New York City.

## G. E. and Westinghouse Price Reduction

Below are former and new list prices on General Electric and Westinghouse photolamps:

### PHOTOFLASH LAMPS

	Former Price	New Price
No. 5	\$0.20	\$0.13
No. 7	.18	.15
No. 15	.18	.14
No. 11A	.15	.13
No. 16A	.20	.15
No. 21	.20	.15
No. 30	.28	.24
No. 31	.30	.23
No. 21B	.25	.20
No. 75	.75	.55

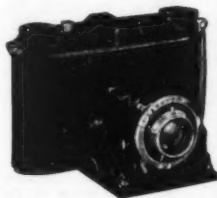
### PHOTOFLOOD LAMPS

	Former Price	New Price
No. 1	\$0.20	\$0.15
No. 2	.40	.30
No. R2	1.10	.85
No. 4	1.60	1.20
No. 1B	.50	.30
No. 2B	1.00	.60
No. 4B	2.50	1.75

### ENLARGER LAMPS

	Former Price	New Price
No. 111	\$0.50	\$0.35
No. 211	.50	.35
No. 212	.35	.25
No. 213	.35	.25
No. 301	1.00	.75
No. 302	1.00	.75
No. 303	1.00	.75

### Speedex Junior



The Speedex Junior (\$11.00) has the construction features, body shutter release, optical eye-level finder, and all-steel frame of the more advanced Speedex. Fitted with a fixed-focus, four-aperture, double lens of rectilinear correction and a shutter giving instantaneous and time exposures. Picture size is  $2\frac{1}{4} \times 2\frac{1}{4}$ , twelve on a B2 roll.

Made in U. S. A. by Agfa Ansco, Binghamton, N. Y.

### Univex Corsair I Camera

The Corsair I (\$16.75) double-frame 35mm. camera has a body of General Electric Textolite and a 50mm. f/4.5 anastigmat. Shutter provides speeds from 1/25 to 1/200 second, Time and Bulb, and has its release on the body of the camera.

Retractable lens mount automatically locks shutter unless lens is in taking position. Focusing from 3 ft. to infinity is provided. Has built-in extinction type exposure meter and exposure calculator.



Exposure counter measures off leader and trailer when loading and unloading camera without manual operation of shutter release while winding film. Takes Univex Mercury 10-exposure and 20-exposure rolls. Univex cartridge for bulk film also fits this camera.

Made by the Universal Camera Corp., 28 W. 23rd St., New York City.

### ReCor Kit

Containing necessary materials and equipment for making snapshots and enlargements, the ReCor Kit includes a camera, enlarger with opal bulb and easel attachment, developing tank, three trays, 2 dozen sheets of printing paper, safelight lamp with filters for film and paper, graduate, stirring rod, five sheets of blotting paper, fine-grain developer, three M.Q. tubes, hypo, two film clips, two rolls Agfa film, rubber roller, focusing strip and instruction booklet. Price about \$12.00.

Distributed by Paramount Photographic Supply Co., 541 South Spring St., Los Angeles, Calif.

Exclusive Eastern Distributor is Raygram Corporation, 425 Fourth Ave., New York City.



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## Elwood's Swing-Tilt Lens Mount



Elwood's rotating and tilting mount for enlarger lenses, (No. 1 for 3" to 4" lenses, No. 2 for 5" to 12" lenses) when used with a tilting easel corrects vertical and horizontal lines to exact scale measurements. Easel can be tilted up to 60° and the image sharpened over the entire surface without stopping down to small openings.

Swing-Tilt mount is useful for angle shots of maps, drawings, buildings, and scientific subjects, and substitutes for swings of commercial cameras by correcting image distortion of the negative.

For further details write: Elwood Pattern Works, 125 N. East St., Indianapolis, Indiana.

## Luxor Wash Tank No. 3

The Luxor Water-Powered Tank No. 3 features a cellulose sponge filter, effective churning action by cross-current of water through the prints, and has a dish-shaped bottom that keeps prints from adhering and settling at the center of rotation.

Filter keeps dirt and grit in water from getting on prints and is said to cut down the flow only 10%. Tank is 16" in diameter and takes 8x10 and smaller prints.

For further details write: Burke & James, Inc., 223 W. Madison St., Chicago, Ill.



## "Automatic" Developer

In the No. 1 bath of the two-bath Lynhoff "Automatic" Developer (2-qt. size, 85°) the film absorbs all the required developer, after which it is placed in the No. 2 bath, in which the chemical action of development ceases when the absorbed chemicals are exhausted.

This "Automatic" Developer is said to (1) compensate for a wide range of under- or over-exposure; (2) give uniform results over a wide range of time and temperature variations, normal range being 2 to 6 minutes at 65° to 85° F; (3) develop three times as much film as a similar amount of standard single-solution developers, and (4) work with printing papers.

Light action on the emulsion controls the amount of development, and rapid exhaustion of the absorbed developer in overexposed areas prevents excessive contrast in those parts, slow exhaustion of the developer in shadow areas permits building up of additional density there.

For further details write: Lynhoff Laboratories, Rochester, N. Y.

## Badger Hydraulic Agitator

Operating on the principle of changing center of gravity, the Badger Hydraulic Agitator (without tank, \$3.95) requires no special water connections. Speed of agitation is controlled by rapidity of the water flow into the trough.

Accommodates film tanks of any size, adjusting tank clamps balancing different tank weights.

Agitator is constructed of acid-resistant metal with crackle enamel finish. For further details write: American Trunk & Case Co., 40 S. Wells St., Chicago, Ill.



## Cykora Glossy's Four Contrasts

Agfa's warm-tone Cykora paper comes now in four grades of contrast, but only in the glossy surface. Made by Agfa Ansco, Binghamton, N. Y.



### "Long Fellow" Enlarger

The Moore "Long Fellow" Enlarger (\$50.00 without lens) is designed to fit even small darkrooms. Takes  $2\frac{1}{4} \times 3\frac{1}{4}$ " and smaller negatives. Enlarger and baseboard are spring-mounted on a 90-inch chromium-plated post. Entire unit, when not in use, may be swiveled against the wall and occupies a space of  $90 \times 20 \times 7$  inches.

Cooling system air intake is located at a light trap near the lens, air then circulates between the condensers, around upper condenser and up through the lamphouse, which is painted black to increase heat in upper part of the air chamber and make air circulation more rapid.

Enlarger's light traps and metal-sleeve bellows are said to permit safe enlargement on panchromatic films without special shielding. Three lens boards (recessed, flat, and protruding) are furnished to accommodate from 2-inch to 6-inch lenses. Bulb adjustment permits use of different size bulbs.

Negative carriers are metal-bound glass plates, removable when using glassless negative carriers. Two levers on the carrier hold negative against the lower condenser, assuring flat film plane. Lower condenser and negative holder may be rotated to take any  $2\frac{1}{4} \times 3\frac{1}{4}$ " portion of negative as large as  $11 \times 14$  inches.

The  $20 \times 30$ " baseboard may be rotated through  $360^\circ$  both vertically and horizontally for either distortion or correction of the projected image. Baseboard is adjustable on the upright from 6 inches to 5 feet above the floor, permitting working either sitting or standing. Two brackets attach the 90-inch post to side wall or floor and ceiling, reducing vibration to a minimum.

"Short Fellow" (\$40.00) is a table model of the same design, without the 50-inch post.

For more details write: ElKay Photo Products, Inc., 303 Washington St., Newark, N. J.



### Casco Glassine Envelopes

Casco Glassine Envelopes for preserving negatives from finger marks and dust are sold directly to the consumer by the Camera Sales Co., Box 668, Shamrock, Texas.

Price list is as follows:

Size to fit	*Price
$1\frac{1}{8} \times 2\frac{1}{2}$ "	400 for \$1.00
$1\frac{1}{4} \times 2\frac{1}{2}$ "	400 for 1.00
$2\frac{1}{4} \times 3\frac{1}{4}$ "	400 for 1.00
$2\frac{1}{4} \times 4\frac{1}{4}$ "	350 for 1.00
$4 \times 5$ "	250 for 1.00
$5 \times 7$ "	200 for 1.00

\* Mailed postpaid anywhere in U. S., (10% discount to camera clubs).

### Master Dodger

The Master Dodger (\$1.00, complete) is a sturdy wire handle with a clip at one end to hold different shapes of press board. Permits shading parts of the enlarging paper while printing-in or "dodging" on a print.

Cufit also includes piece of press board from which special shapes may be cut by the photographer.

For further details write: The Master Dodger Co., 765 13th St., Boulder, Colorado.

### Photo-Art Dodger

The Photo-Art Dodger (75c) has apertures of various shapes for "printing in" localized spots, specialized effects, and vignetting. Device is  $1\frac{1}{2}$ " in diameter.

For further information, write: Photographic Arts Supply Co., 39 West 60th St., New York City.

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18 exp. roll.....	.60
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18 exp. roll—(Split 120 or 127).....	.90
12 exp. roll—(120 film enlarged to 4x6).....	.75
8 exp. roll (828 or Bantam).....	.35
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## Three-Color Separator

The Omega Three-Color Separator (\$22.50) for making color separation negatives from Kodachrome and Dufaycolor transparencies, minimizes need for a light-tight darkroom when working with panchromatic films. The Separator is a ventilated, light-tight box containing a 50-watt 3200° K bulb to give proper color temperature of light source. Light is transmitted through the filters before reaching the transparency, and minor imperfections in the filters thus do not influence negative quality. Films are exposed in regular filmholders.

Red, green, and blue filters, a clear space for focusing, and transparency holder are mounted in the box. Device can be used with an Omega enlarger equipped with a Simmon copying attachment (\$15.00) or with any camera having a double-extension bellows.

For further details write: Simmon Bros., Inc., 37-06 36th St., Long Island City, N. Y.

## Polaroid Variable Day Glass

The Polaroid Variable Day Glass is a pair of eye-protecting spectacles, each eye-piece having two Polaroid lenses. Front lenses are stationary in the frame, but back lenses may be rotated by a frame button.

Moving the control to the extreme left transmits maximum amount of useful-seeing light. Moving it to the right decreases the amount of light transmitted until last adjustment permits viewing the brightest scene without discomfort.



## Agfa Tray-Clip Thermometer

Agfa's "Tray-Clip" Thermometer (45c) has a stainless steel clip-on feature for attaching it to a tray or small tank. Numbers and degree marks are large, and the prism-type construction of the glass tube magnifies the width of the dense black fluid column. The lower part of the stainless steel support curves in front to protect the glass bulb.

Made by Agfa Ansco, Binghamton, N. Y.

## Quickset Sportpod

The Quickest Convertible Sportpod (\$3.75), in three sections, when extended to its full 58" makes a rigid eye-level camera support. In telescoped position with adjustable strap around the neck and lower end at waist level, the camera is also held firmly at eye-level. Made of aluminum it weighs 15 oz. Accessory is a metal tilt top (\$1.00) giving a 180° tilt for extreme angle shots.

For further information write to: Whitehall Specialty Co., 1735 Diversey Parkway, Chicago, Ill.



## Besbee Titrting Easel

The Besbee "Trick-Effect" titling easel (\$8.50) holds a card or title effect size 9 x 12", and has clips to take shafts for revolving backgrounds, "flip-up" or "flip-down" and "turn-around" or "turn-over" titles. Background cards and two revolving card grippers, clamps, large and small operating handles and scroll title feed and take-up spools come with it. Accessories of the Pro-Trik frame may be used with the "Trick-Effect" easel.

For literature, write: Besbee Products Corp., Trenton, New Jersey.

## Home Movies Processing Outfit

Complete outfit for processing home movies taken on bulk film (\$12.50, complete; \$9.95 in kit form) includes a Graphic Reel taking 32 ft. of 16mm. or double-8mm. film, drying rack, instruction booklet, and formulas.

Outfit requires 1 qt. of solution if an 8x10 tray is used, 2 qts. in a 10x12 tray. Kit can be assembled in about 10 minutes, it is claimed.

For illustrated circular write: Superior Bulk Film Co., 188 W. Randolph St., Chicago, Ill.

### Wide Angle Velostigmat

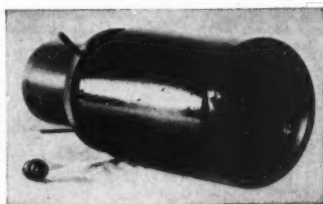
The 15 mm. f2.7 Cine Velostigmat wide angle lens (\$42.50) comes in a precision micrometer focusing mount that can be set from one foot to infinity. Fits 16 mm. movie cameras and can be used on turret models.

Made by the Wollensak Optical Co., 501 Hudson Ave., Rochester, N. Y.



### Dallmeyer Giant Telephoto

Claimed to be the longest focus, largest aperture telephoto lens commercially produced, the 60-inch Dallon Anastigmat f8, is 8 3/4" in diameter, 18" long and weighs 53 lbs. Accompanying illustration shows it beside a 4-inch Dallon f5.6.



Lens was designed and made to special order for Medo Photo Supply Co., New York City, who supplied it to one of the largest news picture companies in the United States.

The lens can be adapted for use with miniature cameras (for which it would give 30X linear magnification) and for movie cameras (for which it would give 60X magnification). Dallmeyer now lists this lens as a standard production.

Made by J. H. Dallmeyer, Ltd., Willesden, England.

### "Aida" and "Rosamunde" Sound Films

Filmosound Library branches and dealers offer two "symphonic featurettes" for rental or sale.

"Aida" and Franz Schubert's "Rosamunde" are recorded on sound film by the National Philharmonic Symphony orchestra of 122 men and its 100-voice choir.

For further details write: Bell & Howell Co., 1801 Larchmont Ave., Chicago, Ill.

### Brighter Lamp No Hotter

Bell & Howell's 750-watt, 10-hour lamp is said to produce 50% more light than the standard 750-watt, 25-hour lamp, yet generates little additional heat. Has new B & H "Black-top" feature.

Further information from: Bell & Howell Co., 1801 Larchmont Ave., Chicago, Ill.

### Desk Model Blue Printer

The Midprinter (\$20.00) makes 8 1/2 x 11" blue-prints from tracings. It is a glass cylinder containing two No. 1 photofoil lamps, giving even, intense illumination. Holds tracing and blue-print paper against the glass cylinder. Cylinder is revolved, wrapping the tracing and blue-print paper around it beneath a hard-surfaced cloth cover on a spring roller. Exposure times are from 40 seconds to 1 1/2 minutes, depending on the paper used. Printer comes with 20 sheets of 8 1/2 x 11" Blueprint or Directo paper.

For literature and detailed list of accessories, write to: Highland Stamping & Manufacturing Co., 115 North Avenue 49, Los Angeles, Calif.

### Bico Rubberized Aprons

Bico chemical-resisting rubberized darkroom aprons (chest-to-knee model, \$1.10; waist-line model, 95c) have built-in metal belts that eliminate tie strings.

For further details write: L. R. Biber Co., Times Square, New York City.

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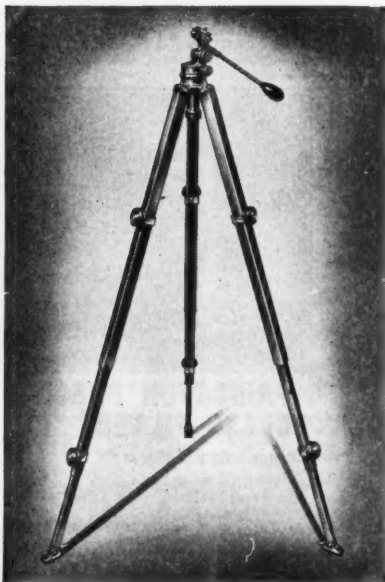
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Address inquiries before July 30 to L. Moholy-Nagy, Director, School of Design in Chicago, 247 East Ontario St. Chicago, Ill.

### Vacation Photography Course in New York

Beginning July 2, and every two weeks thereafter, during the summer, a two-week course of nine lecture demonstrations, and field trips to the World's Fair, and a trip for night pictures, will be conducted by the School of Modern Photography, New York.

Classes, limited in size, will study (1) How to perfect photographic technique, (2) Making exhibition prints, and (3) Special printing processes. Field trip negative, will be developed and printed under the guidance of the school's instructors in its modern laboratories.

Victor Keppler, John Hutchins, G. A. Lazarnick and Ernest Draper are on the faculty.

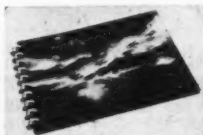
For further information write to: H. P. Sidel, Director, School of Modern Photography, 136 East 57th St., New York City.

### Display Book for Prints

The "Miracle-Mount" Salon Brochure (5x7, \$1.00; 8x10, \$1.50; and 11x14, \$3.00) binds 15 single prints or 20 to 30 back-to-back prints in book form beneath a heavy transparent celluloid cover.

White - enameled metal binding holds the adhesive strips by which the prints are fastened in. Prints may be removed and replaced when soiled or damaged from use, a convenient feature for commercial photographers and salesmen using photographic catalog pages.

Designed and made by Edwin M. Phillips & Co., 420 Lexington Ave., New York City.



### Bino-Viewer

The Bino-Viewer (\$3.50) permits viewing positive transparencies with both eyes, less fatiguing when many subjects are viewed. Viewer takes two prints of each picture on 35mm. positive film strip, but produces a stereo effect only when negatives are made to give this effect.

Two 1 1/8-inch Simpson plano-convex lenses make up optical element, in a Catalan housing.

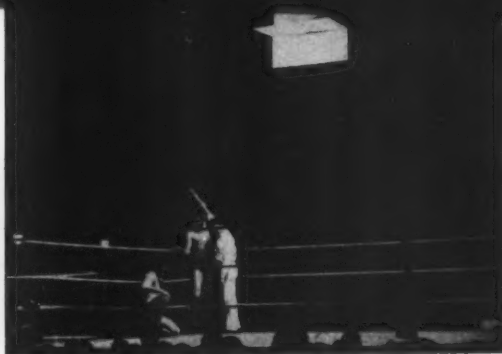
For further details write: Diamond Dee Studios, 218 S. Wabash Ave., Chicago, Ill.



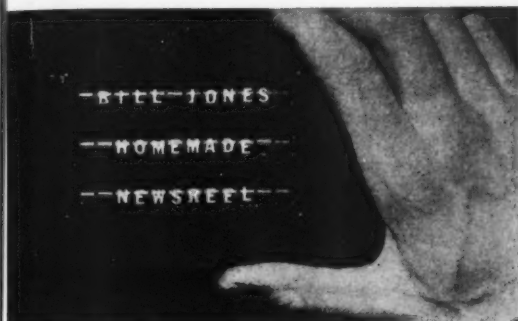
"Junior!—roll that film right back up. Daddy's going to take it to the drugstore to be developed."



• **Disaster.** These box cars were sandwiched together in a Montana train wreck following a washout. Wrecks always make fine topics for an 8mm or 16mm. newsreel.



• **Sports.** Super-XX film is fast enough to catch wrestling action in local rings under ordinary lighting with  $f/2$  or faster lenses.



• Univex pocket titler can be used at home or out on location. Turning dials move the letters.



• This 16mm frame enlargement of a disaster title reveals date for the record.

## ★ SHOOT YOUR OWN NEWSREEL

BY LESTER G. LONGMAN

• **THE AMATEUR CAN TACKLE** two types of newsreel. One is the personal or "private" newsreel, built around one's own backyard, featuring highlights in the day or month of a single family. Such a film will appeal mainly to relatives or friends, although, with the injection of human interest, the appeal can be broadened. The other type covers subjects which have purely local significance. Such non-commercial films may rate

showing before home town audiences in any theater equipped with a 16mm. projector. Many neighborhood theatres have 16mm. projectors available for just such purposes.

• **NEWSREEL SUBJECTS.** Many movie makers still think that distant pastures are always greenest, that one must trot off to faraway places to bring back unique footage. The truth is most any



town will provide enough subject matter to keep a homemade newsreel rolling for many months.

The first principle of the amateur newsreel photographer is to avoid trying to compete with professional newsreelers. It doesn't pay. Great accidents, tornados, and fires are usually given complete coverage. It is the local, small town events that furnish the best grist for the mill of the amateur.

To check possible newsreel topics, first review some of the high spots in the news of your community during the past dozen months. Maybe a big transport plane made a forced landing in a nearby pasture, a notable trekked down Main Street, the early morning freight plowed through a broken switch to derail forty-odd cars, or an ice jam caused the local brook to rise high above flood stage. Such "spot news" event can be filmed only if you are lucky enough to be on hand at the right time.

● **EQUIPMENT ESSENTIALS.** All personal filming equipment can be employed to good advantage in preparing a celluloid news record. Certainly the camera lens should have at least an  $f3.5$  rating, and preferably  $f1.9$ . The 1-inch lens is good for all-round shooting, but a 3 or 4-inch telephoto will permit obtaining close-up studies at remote distances when filming, say, an apartment house blaze, a strike among workers, or a ship being battered by giant waves.

Sometimes filming must be done at close quarters on crowded streets or where it is desirable to exclude objectionable foreground material. Here the wide angle lens will fill the bill.

While there may be moments when quick-trigger work with a hand-held camera is necessary to capture the shot, nevertheless a tripod should be used for rock-steady pictures. An exposure meter is a desirable aid, while a yellow filter for monochrome film (black and white) will beautify silhouettes and cloud scenics. Of course, no filter is used with Kodachrome under normal conditions.

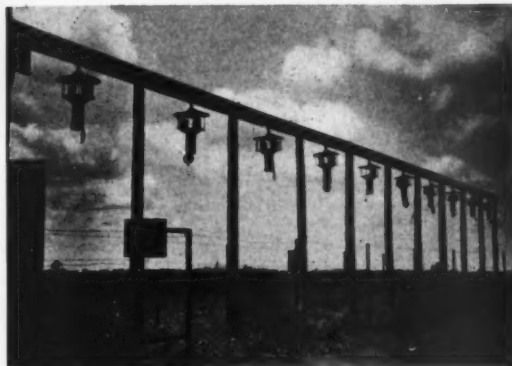
Flower shows, weddings, bathing beauties, street parades, local business campaigns, scientific stuff and similar topics which in themselves are beautiful and attractive should certainly be filmed with Kodachrome. But disasters—such as floods, tornados, volcanic eruptions, hurricanes, earthquakes, train wrecks, life-consuming fires and similar catastrophes—are far from admirable, and their depressing after-effect, if filmed at all, is best expressed in monochrome.

● **NEW SLANTS AND ANGLES.** Don't shoot all your scenes from eye or hip level. Try for worm's-eye views looking up from ground level, with the fore part of the camera resting atop the toe of your shoe and lens tilted upward. Or try an occasional bird's-eye view looking down on the object from near a vertical position.

While interesting parade shots may be made from office windows 10 or 20 stories above street level, the best close-ups are obtained from an oblique position just over the heads of the crowds lining the streets. In fact, members of the St. Paul Amateur Movie Makers Club, covering the city's recent 1940 Winter Carnival, employed a furniture truck suitably parked along the parade route so that shooting could be done from the truck itself. One fellow had a telephoto-equipped camera mounted directly over a second camera equipped with a 1-inch lens so that he could take both close-ups and long shots simultaneously. Sometimes platforms built atop automobiles provide excellent perches for news angling cameramen.

● **EDITING THE NEWSREEL.** Equally as important as good photography is proper editing, for newsreels must always trot, never lag. The film editor controls the tempo of the reel, cutting to fit the mood and nature of each subject filmed. Scenes badly exposed are discarded at once, the lengthier ones shortened, with close-ups always following medium and long shots. (Page 112, please)

• **SCIENCE.** Good picture clouds and an interesting camera angle enhance this shot of bug traps, described in this article.



• **NEWS.** Filming a 16mm. newsreel short of sewage tunnel construction 80 feet below the surface of city streets. Photofloods furnish the sole illumination.



• **ODDITIES.** Steam shovels and trucks battle to remove winter snow from Glacier Park's Going-to-the-Sun Highway in mid-July.



• **INVENTION.** A garageman built this miniature bus for his children. Close-ups of the interior and shots of the tiny bus on busy streets made a good sequence.

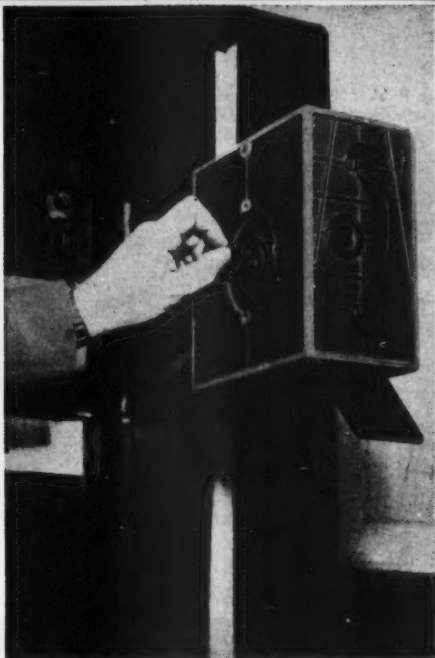
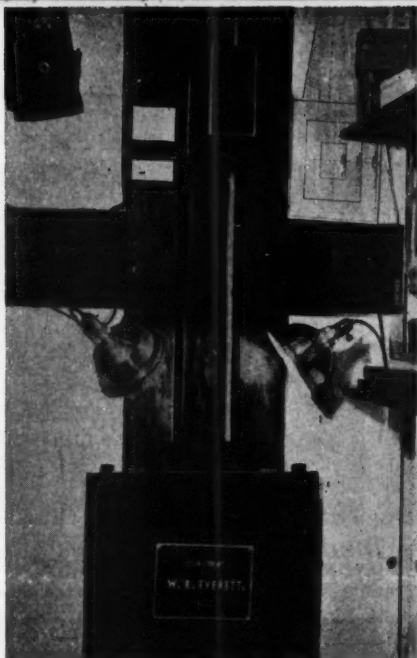


• **NEWS.** Elevation is necessary for proper angle in parade filming. St. Paul movie makers parked a truck in the line of march to cover the 1940 Winter Carnival line-up.



• **DISASTER.** Only a few hours before this picture was taken, services were being held in this tornado-wrecked church at Anoka, Minn. Actual movies of the funnel cloud would make such footage even more valuable.





## ★ FOLDING TITLER

● **THIS COMPACT, VERTICAL** movie titler permits zooms, double exposures and other trick effects, and folds flat against the wall when not in use.

Six feet tall, the titler consists of a folding table on which title cards are mounted, and a grooved backboard track in which the camera slides freely. The camera is held to an elevated base by a tripod screw, while lugs in the waxed track permit the camera to be raised or lowered to any height.

An 11x14-inch opening, properly aligned with the camera lens, is cut in the center of the title card holder, which is hinged to the wall, and legs are collapsible so that the entire unit folds back, thus utilizing a minimum of space. Clear glass may also be placed over the opening for thick, double-exposed titles.

Lighting is furnished by two goose-neck reflector lamps equipped with No. 1 photofloods, and these are adjustable for



● Placing glass pane in rectangular 11 x 14-inch opening cut in title card base for trick effects.

any height. Although most any movie camera can be adapted to this titler, an old Eastman Model A was used here because of its hand-cranking feature.

The amateur movie titler can also be used for copying small objects in close-up. By substituting an enlarger head for the movie camera, the rack and table can be transformed into a handy enlarger for still camera work,

# ★ SOUND RECORDING

BY S. T. GOLOW AND C. A. NYE, JR.  
ILLUSTRATED BY THE AUTHORS

● **THE DREAM OF THE PIONEERS** in the motion picture field was adding voice to the film and some of us remember the early attempt to hitch an Edison wax cylinder record to a motion picture projector. The genius of Lee DeForest and others in perfecting the amplifying tube was really the "push" which made sound motion pictures possible.

Today the strides in perfection of sound fidelity is amazing. In this brief treatise, I will attempt to give the basic principles of sound recording, particularly the Variable Area System, which is the most efficient known for 16 mm. sound single system.

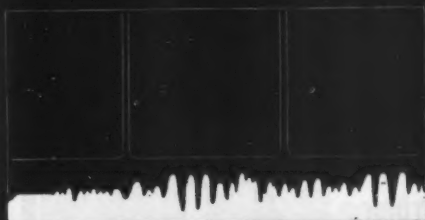
The old, silent 35 mm. movies all were taken at 16 frames per second and present-day 16 mm. silent movies also are taken at 16 frames, or pictures per second and projected at the same speed.

Sound pictures, however, are taken at a speed of 24 frames per second either in 16 mm. or 35 mm. size. The increased linear speed of the film permits the waves on the sound track to be spread apart on the film record and not so crowded. This is especially important with the higher sound frequencies. At the same time, better picture quality is obtained with less flicker on the screen at the higher speed.

The growth of 16 mm. Sound on Film has been very rapid. The development has now reached a point so that 16 mm. sound on film cameras are being used commercially. The amateur today can get a sound camera complete in itself for about \$250.00, such as the 16 mm. RCA Sound on Film Camera.

A high degree of skill is not necessary to obtain satisfactory sound pictures with the present-day 16 mm. equipment.

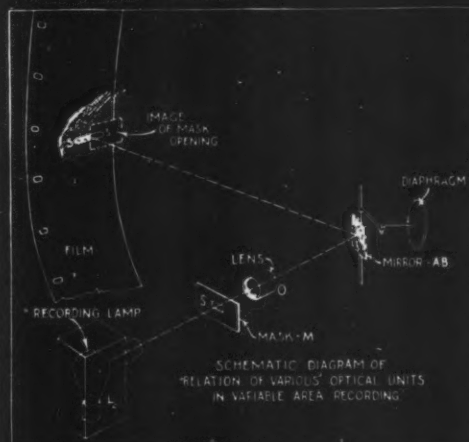
● There are two methods generally used for recording sound on film. These are



● Variable Area Recording



● Single System Recording



● Variable Area Recording

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the variable area and the variable density methods. However, variable area is generally used for recording on 16 mm. film.

Regardless of the method used, sound

• A 16 mm. sound on film camera like the RCA model pictured is now obtainable for about \$250.



for any particular picture frame is recorded 25 frames ahead of the picture. This is necessary because of the aperture plate where the pictures are taken, the film moves with an intermittent or step-by-step motion; while at the point where the sound is recorded, the film must move at an absolutely constant speed.

In the widely used variable area system of sound recording, the sound waves are caused to actuate a small movable mirror in such a way that the mirror reflects a beam of light from a lamp, back and forth on the sound track portion of the film, as shown in the bottom illustration (page 111). The movements of this light beam produce a wavy edged "sawtooth" effect when the film is developed, as in the top illustration. This is the sound track.

For a more complete discussion of 16 mm. sound recording, the authors recommend their recent book, "16 mm. Sound Recording for the Amateur."

## Shoot Your Own Newsreel

(Continued from page 108)

Suppose your science section contains a newsreel short on bug traps now being used on farmlands. On a nearby campus, for instance, are 10 of these little bird-house-shaped devices containing lights of varying color and brightness to attract night-flying insects. As the bugs hit the light, they are deflected into a jar containing fumigant. At regular intervals,



the jars are emptied and the contents sorted and classified, thus enabling scientists to predict which type of light attracts the most insects.

To edit such a sequence, open with a long shot of the string of traps suspended in the air against a background of fluffy clouds. The next shot might show two or three such traps with an experimenter actually going through the motions of emptying the jars. Then come in for a near shot of only one trap, followed by a close-up of an hourly catch of bugs. Dissolve to a laboratory table showing a white-cloaked scientist analyzing the catch and making copious notes. If your camera is equipped with extension tubes, be sure to make a macro close-up of a few specimens. Finally, you return to a night shot of the lighted bug traps with insects swarming all about.

● **TITLING THE NEWSREEL.** Once the film is whipped into shape, decide upon a suitable name for your special feature. You might call it *Parade of the Eights* (8mm.), *The Sixteen Parade* (16mm.) or *Yesterday's Newsreel*. Or you might coin a word incorporating your own name.

Each edition of your newsreel should feature science, sport, news, fashions oddities, and possibly disaster, and, unless the footage is unduly long, an introductory title can easily cover each topic. Titles should be as brief as possible, comprising a complete sentence and expressing an idea or two not brought out in the scenes which follow. Titles may be hand-lettered, typewritten, laid out with block letters of Anagrams, or set up by one of the commercial titling firms with a double-exposed background. The newspaper headlines featuring the news incident itself can be photographed to precede the footage.

● **SYNCHRO-SOUND FOR NEWS-REELS.** So accustomed is the average movie-goer to sound and music that newsreels might seem pretty drab even in the home when screened without dual turn-

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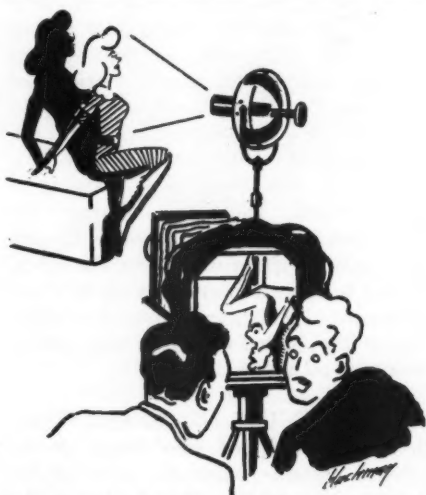
table accompaniment. Fortunately, they lend themselves nicely to excellent sound synchronization, and some outstanding effects may be obtained with realistic recordings.

Every newsreel needs an opening blast of trumpets, and Standard Radio Sound Effects of Chicago offers a suitable assortment of fanfares in their catalog of disc recordings. By consulting the lists of this company and those of Speedy-Q of Los Angeles, movie makers will find sound discs to fit most every type of newsreel.

You can buy discs for train and steamer whistles, crowd noises, airplanes in flight and grounded, and even animal and bird calls for your zoo shots, which are just a few of the types now available. These cost \$2.00 to \$2.50, and are similar to those employed on many radio programs.

After you have edited and titled your film and picked out the sound, run and re-run the film until you have memorized every scene, then type out a cue sheet containing a brief description of each spot where a new sound effect or musical re-

cording will be played. By carefully picking your newsreel shots and introducing appropriate sound, you will double the fun of movie making and broaden your own horizons beyond the realm of personal filming.



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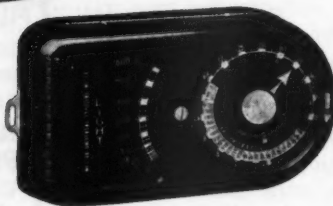


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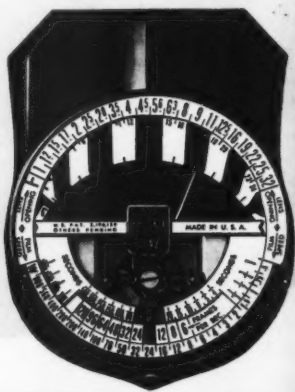


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